THE WORLD'S WORK

DECEMBER, 1900

25 CENTS $3 A YEAR

A HISTORY OF THE MONTH

DISCOVERIES IN OUR ARCTIC REGIONS

A TRIUMPH OF AMERICAN SCULPTORS

THE GREATEST FINANCIAL FEAT IN HISTORY

THE BETTERMENT OF THE WORKMAN AS AN INVESTMENT

LARGE PORTRAITS OF JOHN SHERMAN, MARK TWAIN, ELIHU ROOT, MINISTER WU AND A HUNDRED OTHER ILLUSTRATIONS.

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GENERAL WILLIAM TECUMSEH SHERMAN.

Statue by Augustus Saint-Gaudens, exhibited at the Paris Exposition. There has been a good deal of discussion of the question of placing this statue in Central Park, New York. (*See "A Triumph of American Sculptors."*)

THE WORLD'S WORK

VOLUME I DECEMBER 1900 NUMBER 2

The March of Events

THERE is no mistaking the larger meaning of the Presidential election. The events of the last four years have indicated the passing of the period of our international isolation; and the people have shown their understanding and approval of the change with an emphasis that they have not used since they expressed their understanding and approval of the war to preserve the Union.

The first half-century of the republic was given to procuring, exploring, and very slowly settling the transcontinental area that we occupy; several decades were given to the fierce discussion and at last to the eradication of slavery; and the last thirty years have been given to more rapid settlement and to the uninterrupted development of the land and of the people, and to the swift movement of the organization of energy. During this last period we grew in power and wealth faster than we knew, and we kept the narrower economic and political vision of an earlier time.

But the little war with Spain and its consequences lifted our horizon, and we saw more clearly the place that we had won in the world.

What was at stake in the Presidential campaign, then, was not the old stake of mere party supremacy — whether we should have a Republican President or a Democratic President; for the historic doctrines of the two parties played small part in men's thoughts. States rights and customs duties were hardly mentioned. It was a contest whether we should accept the larger responsibilities of the new era in our development, or should keep our old-time isolation. The question was more clearly put than any question had before been put to the whole people for thirty years: Should we maintain our commercial honor and credit, should we accept our international responsibilities, and should we go forward in our natural and fairly won commercial progress to supremacy?

The people saw this larger meaning of the contest; and every state whose population shows primary activity and independence of thought, for the first time since the period just following the Civil War, cast its vote for the same candidate; and there has been no Presidential election since 1864 that was so keenly watched abroad.

As the century begins, then, we clearly enter a new period in our national development.

THE PRESIDENT'S TRIUMPH

SURELY no more solemn responsibility ever rested on a ruler than now falls on President McKinley. The approval of the people has been most flatteringly expressed — approval of the gold standard, of a vigorous foreign policy, of the administra-

SENATOR GEORGE F. HOAR.

tion's aim in dealing with our island wards. And the President has the right to feel a profound personal gratification as well. Mr. Roosevelt, too, may take a large share for himself. They both now enjoy a degree of public favor which few men in recent years have won. No administration has for half a century begun under happier conditions than Mr. McKinley's second administration will begin.

GOVERNOR-ELECT ODELL OF NEW YORK.

Any candid student of contemporaneous politics must confess that the President has, during his first term of office, steadily gained fixity of purpose and continuity of policy. He has evolved a definite programme out of the popular generalizations with which he was equipped four years ago. Few men have developed better under great responsibilities; and between the beginning and the end of an administration no greater stride was ever taken from the common level of politics towards true statesmanship.

Much of this definiteness has come from the strong men that the President has gathered about him. When he began his administration, Mr. Sherman, too heavily burdened with years, was Secretary of State, and Mr. Alger, burdened with unfitness, was Secretary of War. To both these (so at least the public reasoned) portfolios were given for partisan reasons. But the administration ends with the strongest men at these two important posts that have held them for a long period; and Mr. Hay and Mr. Root do not owe their places to political or personal favor. Other recent appointments have been as good — Wood in Cuba, Taft in the Philippines, Allen in Porto Rico. In fact, the President has a stronger cabinet and an abler body of men in most of the places of great responsibility than any President has had since Lincoln; and, as in Lincoln's time, the stress of great duties has brought this about. Few men have been more bitterly regarded by his political opponents than Mr. McKinley was regarded four years ago; yet no Presidential candidate has ever received so large a vote in the electoral college as he will receive.

A strong foreign policy; a firm and gentle hand in dealing frankly with the old Spanish Islands; the cutting of the isthmian canal; the establishment of the gold standard beyond any chance of future discussion; definiteness, definiteness, definiteness, — this is a programme whereby the President may make himself permanently as strong in the public favor as he is for the moment; for the prodigious victory that he won at the polls was not wholly a positive victory. He owes much to the weakness of his opponent. It was a patriotic victory rather than a personal or par-

tisan one. His popular majority was greater than in 1896; and his overwhelming election presents two noteworthy facts: there was a considerable Republican defection in some Republican states, and at the same time a larger and more important independent Democratic vote was cast for him than he received four years ago. More men deserted the Democratic party because Mr. Bryan stood for an attack on the public credit and for the abandonment of our colonial responsibilities than had deserted from either party's ranks in thirty years. Probably neither the Republican defection from Blaine nor the Democratic defection from Bryan four years ago was as large as the independent Democratic vote this year.

So much the greater, then, the responsibility of the President, who has had not only a critical partisan endorsement but an independent and patriotic one besides. During his first administration he has risen to the great occasions that have confronted him — sometimes hesitatingly, but he has every time risen; and he now has a patriotic and expectant people behind him — a support that imposes higher obligations than any merely partisan victory could bring.

NEW MEN IN HIGH PLACES

THE election has brought into prominent, or more prominent, public positions an even larger number of new men than usual, many of them young men too, men who are at most just entering middle life. Mr. Bryan himself is the youngest man that ever played for such high stakes in our political history; and Mr. Roosevelt, just passed forty-two, has had a swift and brilliant rise. He may be said to have won the distinction of the hero of the campaign.

The Governor-elect of Illinois, Mr. Richard Yates, the son and namesake of the famous war governor of that state, was born in 1860, and was, by the way, a classmate in college of Mr. Bryan. He began the practice of law in 1884, and has come forward in politics swiftly. He was appointed a collector of internal revenue in 1897, and before that he had been city attorney of Jacksonville, Illinois, and judge of the county.

Mr. Benjamin B. Odell, Jr., Governor-elect of New York, is six years older than Mr. Yates,

GOVERNOR-ELECT LA FOLLETTE OF WISCONSIN.

and a native and resident of Newburgh. He has been an active politician from early manhood, but his office-holding in the past has been confined to two terms in Congress. He declined a second renomination and gave his time to business affairs and to very active party management. Since 1898 he has been chairman of the Republican state committee.

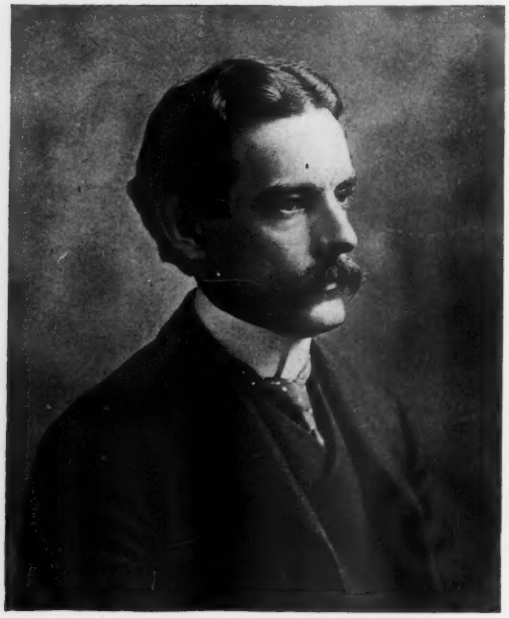
Mr. Robert M. La Follette, Governor-elect of Wisconsin, was born in that state in 1855. A lawyer, he was elected to Congress in 1884 and twice reëlected, but his present prominence in the politics of his state is due mainly to his advocacy of the principle of primary elections for the nomination of all candidates by the Australian ballot.

TWO LONG PUBLIC CAREERS

TURNING to the oldest men in public life, Mr. Hoar, the venerable and personally well-beloved senator from Massachusetts, is the oldest member of the Senate now in service, except Mr. Allison, and the Legislature of his state will probably reëlect him this winter. His political career began in 1852, before any of the men above mentioned were born. After service in both branches of the Legislature of

Massachusetts, and as a member of Congress, he became United States Senator in 1876. Senator Hoar has not agreed wholly with the Philippine policy of the administration, but he has never shown the stuff of which men are made who leave their parties. He is, in several ways, the most notable member of the Senate.

But the last man of the generation in our public life that had to do with the slavery controversies of fifty years ago in the National Legislature, was Mr. Sherman — the last, except Mr. Grow of Pennsylvania, who, as a young man, entered Congress in 1851. Mr. Sherman's public career began in 1848, when he was a delegate to the Whig convention that nominated Taylor. His retirement in 1898 from Mr. McKinley's cabinet made a period of just fifty years. He was first elected to Congress in 1854, and for forty-four years thereafter, as representative, senator, and cabinet officer, he continuously held high official station. Once only has this record in national political service been approached during the later history of the Republic, and that was in the case of the late Justin S. Morrill, whose unbroken service in one branch of Congress or the other covered a period of forty-three years.



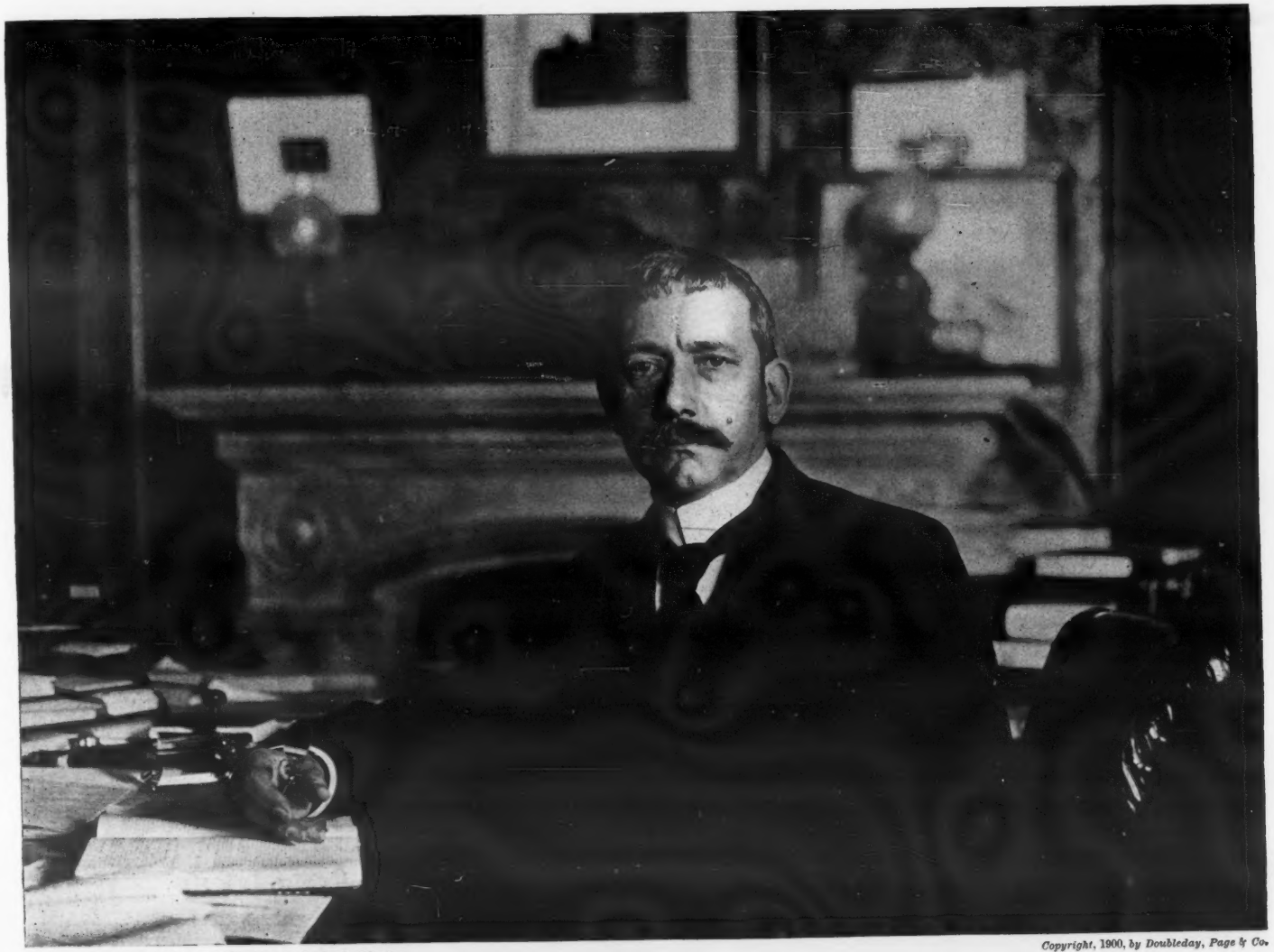
GOVERNOR-ELECT YATES OF ILLINOIS.

MR. BRYAN'S PROGRESSIVE DEFEAT

MR. BRYAN has achieved the distinction of bringing upon the party that was in power when he took its leadership a threefold defeat repeated with progressive emphasis. He opposed the gold standard, he opposed the spirit of the organization of industry, he opposed the nation's responsibility for the wards left to it by war; and he has wrought such havoc on the great political party that succumbed to his eloquence as to reduce it to the shreds and tatters of the discontented and the visionary. No other man in our whole political history has left such a trail of defeat behind him.

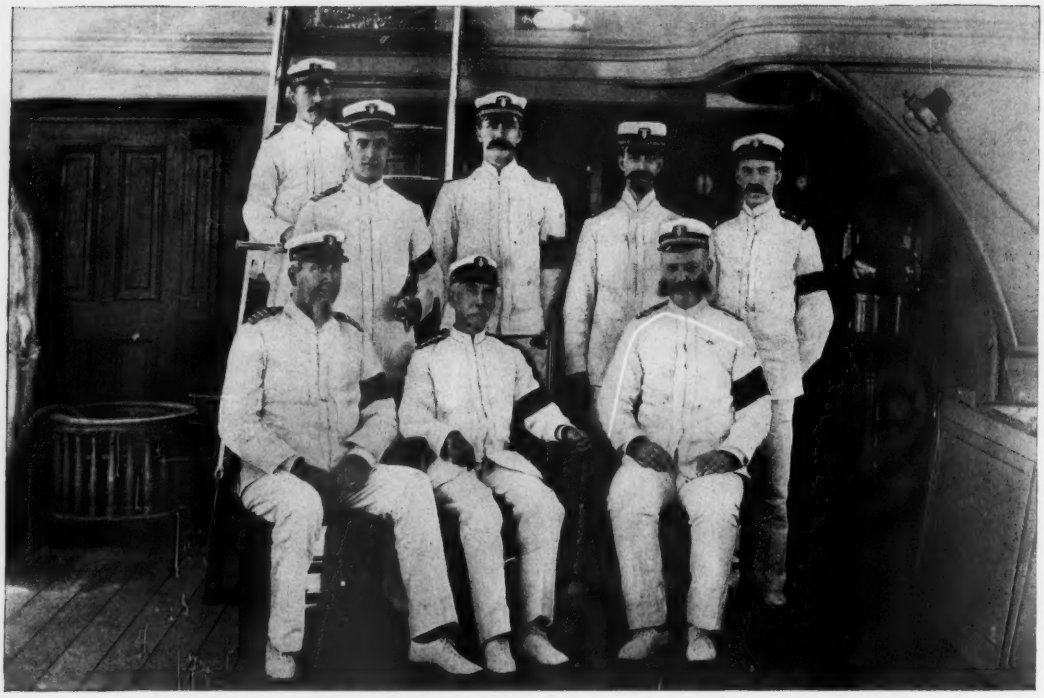
The only states that he carried besides the states that would have voted for a Democratic graven image are four small mining states, and he lost three of the border Southern states — Delaware, Maryland, and West Virginia. He will have four less votes in the Electoral College than the solid South casts.

Men with different points of view have drawn widely different conclusions from the extraordinary defeat of Mr. Bryan. But one conclusion no candid political observer can escape: the American people do not wish him to become President. He stands for what they will not have. The public had an opportunity for more than four years to make its estimate of the man as a Presidential candidate — a better opportunity than any other candidate since Henry Clay has given it; and he impressed himself on them as a danger to the economic welfare of the Republic — a man who had badly fooled himself. But such is the nature of democracies that "no man can fool all the people all the time." The oratorical temperament is likely to accompany a theoretical judgment. The defect in Mr. Bryan as a public leader is that he mistook rhetoric for facts, oratory for achievement. He is a man who never did anything — but talk. A body of concrete results of some form of activity seems to be essential to the building up of a sound judgment. All men who do things have not sound judgment; but few men have it who do not do things. Public opinion usually measures men with a strangely unerring accuracy, if not at the first trial then surely at the second.



Photographed for "The World's Work," by Frances Benjamin Johnston.

ELIHU ROOT, SECRETARY OF WAR. (*See "Mr. Root as Secretary of War."*)



Naval Cadet W. B. Tardy. Lt. Frank Marble. Ensign A. W. Marshall. Lt. W. C. Crosby. Ensign E. H. Watson.
Capt. J. M. Forsyth. Rear-Admiral Watson. Lt.-Cmdr. Chauncey Thomas.

REAR-ADMIRAL WATSON AND HIS STAFF.

On board the Flagship December, 1899. The mourning-bands on the arms are worn for Vice-President Hobart.

THE FUTURE OF THE DEMOCRATIC PARTY

YET not even Mr. Bryan's dismemberment of the Democratic party has killed it. Indeed, there is no such thing as killing either of the great parties of American politics, least of all the Democratic party — except in the minds of visionary gentlemen who carry about with them their own pocket parties. In our political life, the party is an elemental thing. It may be led; it may be misled; but it is as eternal as a river. Its course may be changed, but it flows on.

And the Democratic party is likely to profit by this pitiful experience. If it now find leaders and managers worthy of its history and of its true aims, it may quickly become a healthful opposition and do a great public service; and, under proper leadership, its chance to win the Presidency four years hence is better than if it had this year met only a respectable defeat. At least half the voters of the country would now subscribe to a sound Democratic creed if it should be bodied forth in leaders of vigor and patriotism. For they do not like the "syndicated" aspects of the Republican party. A good working policy till a satisfactory creed is made would be —

The extension of civil service reform to all minor postmasters, and all consuls and consular agents, and the inviolable spirit of the merit system throughout the public service;

The maintenance of the dignity of the nation abroad, a strong navy, a well-equipped and well-officered regular army large enough to maintain a good organization;

The establishment of peace and order in our dependent islands which we hold in trust for civilization, and whose people are our wards to be trained for self-government;

The gold standard;

Publicity about all interstate corporations that fall within Federal jurisdiction;

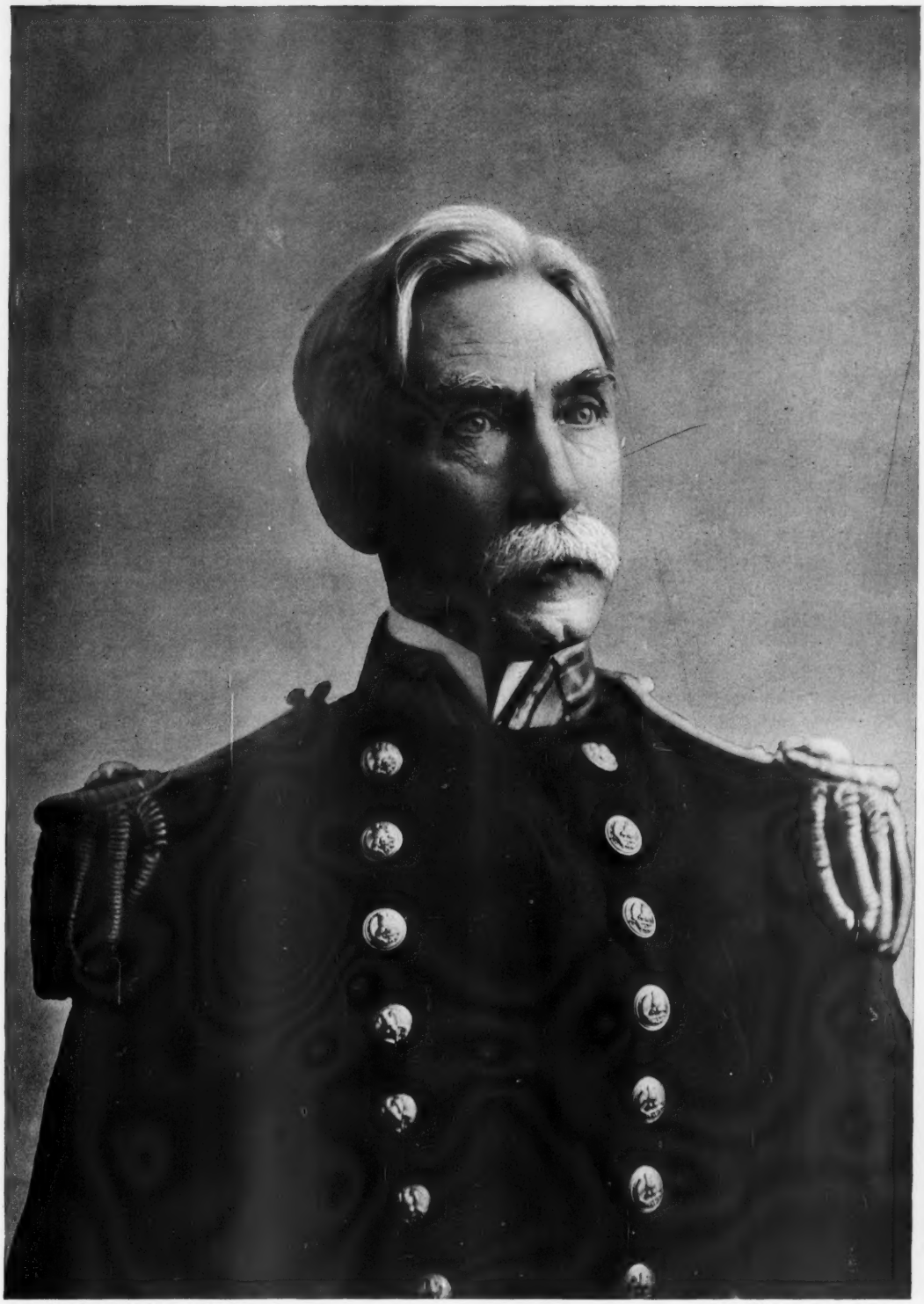
The local taxation of franchises;

The building by the government of an isthmian canal;

The restriction of the franchise without discrimination on account of color, and without subterfuge;

A prompt repudiation of Tammany Hall as a part of the Democratic party.

These are all Democratic policies, and they are positive. Jefferson, Jackson, Tilden,



Photographed for "The World's Work," by Klauber, Louisville.

REAR-ADMIRAL JOHN CRITTENDEN WATSON, U. S. N.

(*See "Our Navy in the Philippines."*)

A MISSIONARY IN CHINA PREPARED FOR A JOURNEY.

Cleveland — every great Democrat has subscribed to them or to the principles that underlie them. Equally important — the men who have twice brought defeat to the party would not subscribe to them.

AN AUSTRALASIAN PARTY

THE blind managers who have twice brought defeat to the Democratic party present an interesting study. Logically they ought to demand first, government control of transportation and of mines, and later the government ownership of them. It is such an extension of governmental functions that they are driving towards, but they have thus far lacked the courage of their convictions.

This collectivist tendency is already strong in some sections of the country, and it will be strengthened at any time by the cessation of high prosperity. It was the hard times of 1893 and the following years that made Mr. Bryan possible in 1896. Such a sentiment will yet have many times to be reckoned with. It has the merit of positiveness; and, in periods of depression, it will make headway. How fast it will grow and what other tenets it will avow will depend to some extent on the success of the similar programme in Australasia.

HOW THE MISSIONARIES TRAVEL IN CHINA.

CHINESE CHILD DRESSED FOR "FEAST OF FLOWERS."

A NATIVE PREACHER.

Photographed for "The World's Work," by Frances Benjamin Johnston.

WU TING FANG, CHINESE MINISTER TO THE UNITED STATES.

(*See "His Excellency, Wu Ting Fang."*)

A CORNER IN THE LIBRARY OF CHARLES DUDLEY WARNER AT HARTFORD, CONNECTICUT.

CHARLES DUDLEY WARNER

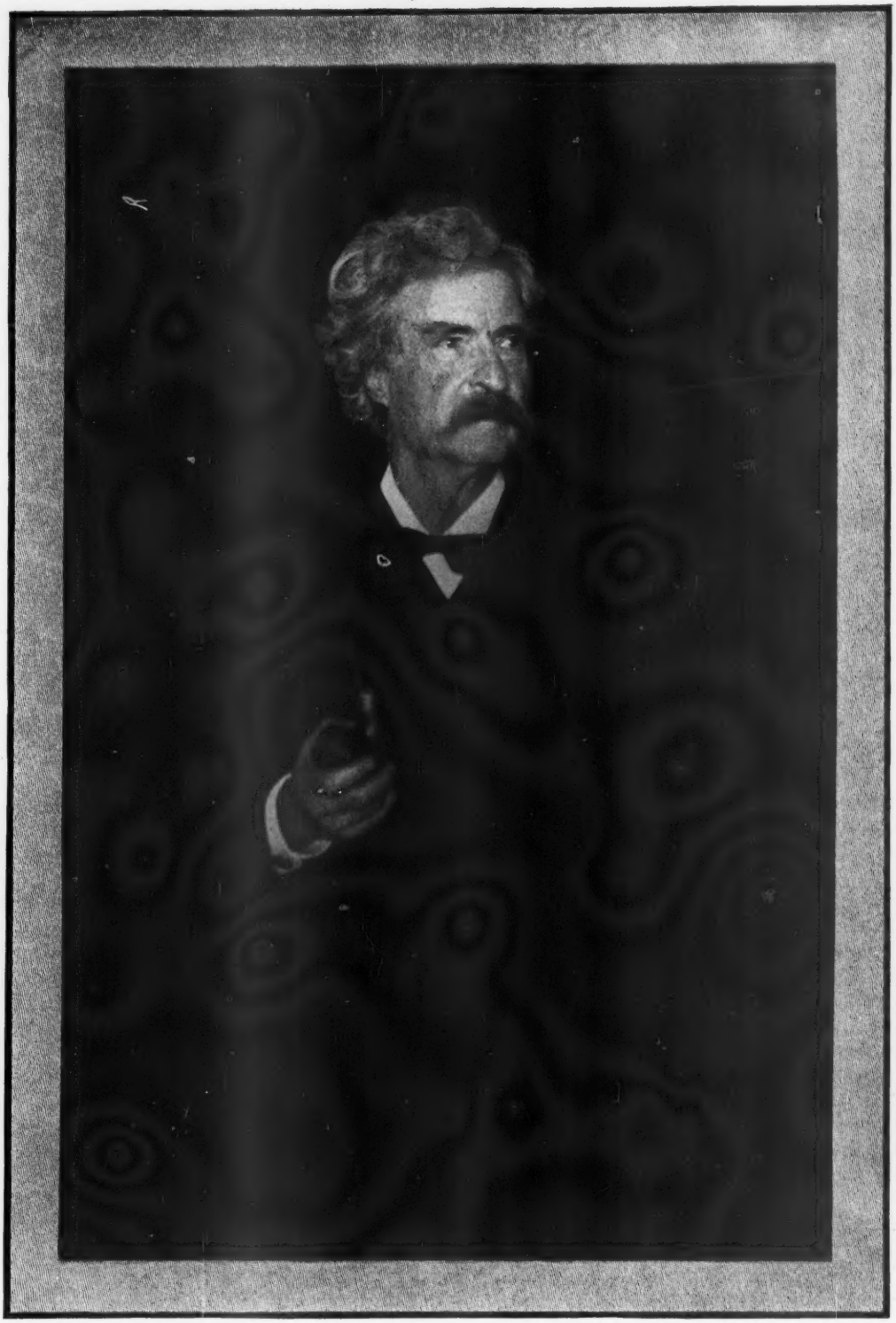
THE society of some men's books is better than the society of the men themselves. Hawthorne's novels have a fascination that Hawthorne lacked. But when Charles Dudley Warner died, the world of good men lost even more than the world of letters. There was a gentle, penetrating, affectionate quality of the man that even his best books lack. Yet his best books are full of a rare geniality. He had a more highly developed social quality than almost any man of letters that is left; and no man is so rich in friendships as to lose such a fine spirit from the best company that he can keep without a keen and lasting sense of loss, and a sense of thankfulness, too, for having known him.

MARK TWAIN AT HOME AGAIN

MARK TWAIN has come home again after a journey around the world and a long residence abroad. At sixty-five he is in good health and fine feather. Whether he be our greatest philosopher or our best wag, or both, — you may start a controversy in any company by propounding either opinion that you hold. And whether it be a part of the philosophical plan of his life, or a cruel threat, or only a joke, — that he is writing his opinion of his contemporaries, not to be published till he has been dead a hundred years, — he will not say. Foreign residence has not changed him, and time deals gently with him. He has taken a house for the winter in New York, and he says that he will not travel more. But he says also that he has in his life received small encouragement to tell the truth, for the world prefers to believe him when he is joking. The double controversy betwixt him and the world continues — whether he is serious or not, and whether or not the world itself be serious.

THE LATE CHARLES DUDLEY WARNER.

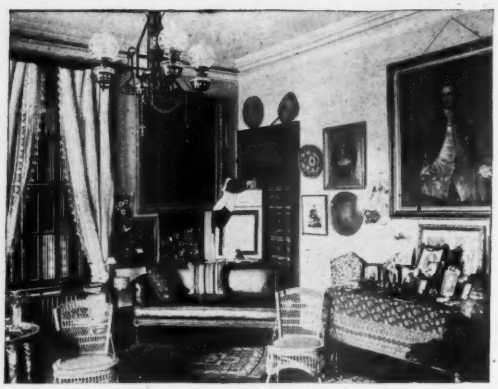
From a photograph taken at the home of his friend, Mr. F. S. Church, the artist.



Photographed for "The World's Work," October, 1900.

MARK TWAIN AS HE IS AT 65.

A New Photographic Portrait by Gertrude Käsebier.



IN THE HOME OF THE LATE WILLIAM L. WILSON.

WM. L. WILSON AND SOUTHERN EDUCATION

MR. WILLIAM L. WILSON, long a member of Congress from West Virginia, author of the Wilson Tariff Bill, Postmaster General in Mr. Cleveland's last Cabinet, and for three years or more president of Washington and Lee University, at Lexington, Virginia, was the best representative in recent years of the higher level of ante-bellum Southern men in public life; and he was as good an example as this generation has had of the gentleman in politics, with an heroic quality at the core of his gentility. It is Mr. Wilson's distinction that when his political career ended, he chose to do educational work rather than to practise law or to engage in industrial pursuits — one might say, other industrial pursuits. He did not live long enough to prove whether he could make a great school of the college of which he accepted the presidency. But he was the kind of man that ought to take up that sort of work; and his taking it up gives the cue to his high-minded view of life, just as taking up the same task showed the same trait in General Lee.

The test given by these two is a true test of high qualities in a commercial era. When the defeat of the Confederacy left its generals in poverty and without employment, some of them sold their influence to the infamous Louisiana Lottery. General Lee declined very lucrative offers to lend his name to insurance companies and other commercial undertakings, and earnestly gave himself to the building up of this college. Mr. Wilson, too, declined chances to make money, preferring to turn his political reputation to the same high end.

And the presidency of a college in almost any Southern state is as hard a lot as falls to a man of capacity who can choose what he will do. Additional equipment is needed, endowment funds are small, rich men are scarce (although Mr. Washington Duke and Mr. B. N. Duke, of Durham, North Carolina, are very generously endowing Trinity College, a Methodist institution in that town, to which they have given about $1,000,000), most of the state universities are regarded with suspicion if not with hostility by the colleges under ecclesiastical management, and most of the colleges under ecclesiastical management must pay a high price in spirit for church support. Yet they must all continually raise their standard, as most of them have done; for they do more good work perhaps at a small cost than any other institutions in the land. Correspondingly there is no work in which a capable Southern man can engage and feel so sure that he is serving his country and his generation nobly.

The generous support of state universities is not as common in the South as in the West. Texas and Tennessee maintain good institutions for higher education, and several other states maintain them in part or meagrely; but in too many of the states the ecclesiastical bodies discourage the public maintenance of universities. This attitude of the churches is doubly unfortunate because few of them are able to equip their own colleges well. It is the churches that discourage the development of a system such as Texas and Michigan have.

THE HOUSE OCCUPIED BY MR. WILSON, BUILT ORIGINALLY FOR GEN. ROBERT E. LEE.

JOHN SHERMAN IN THE STUDY OF HIS WASHINGTON HOME.

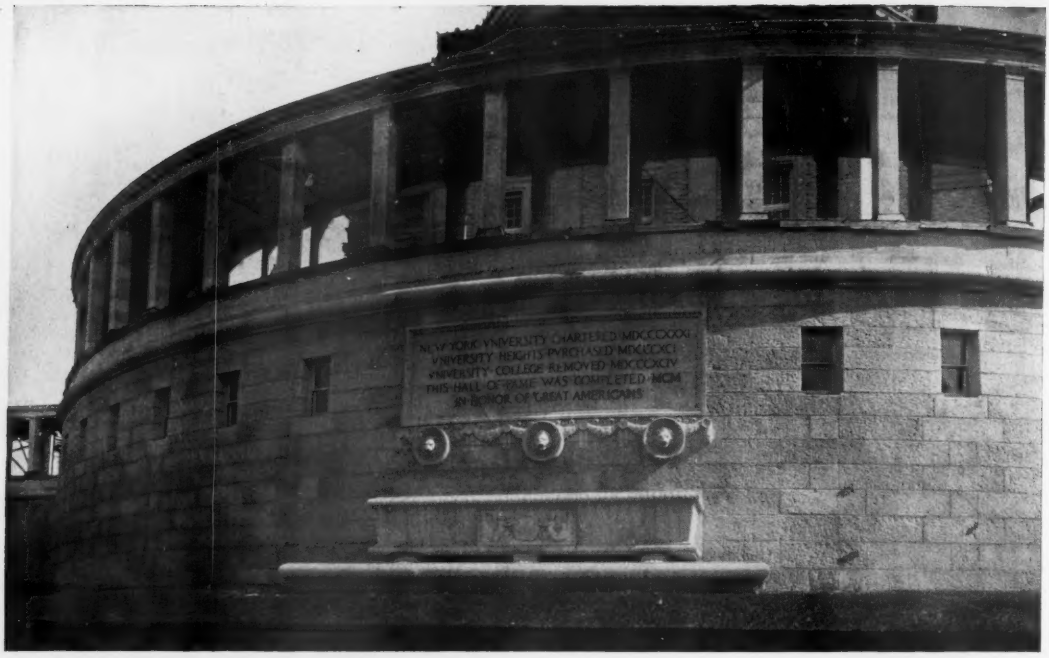
THE CUBAN CONSTITUTIONAL CONVENTION

THE Cuban Constitutional Convention which met in Havana November 5, to discuss and to formulate a fundamental law for the island, has the task of framing a constitution modelled on the constitution of the United States, but adapted to a tropical country and a Spanish-American people. When a constitution is formulated it must be submitted to the President of the United States for approval. The President will doubtless refer it to Congress, which may suggest modifications. All this will take time; but a republic cannot be organized in a day even under the most favorable circumstances.

The call for the convention, issued by the American Governor-General, specified that the constitution adopted should define the future relations of Cuba to the United States. This clause at once provoked a strong protest from the extremists in Cuba, who demanded that the new republic should be left free to frame its own fundamental law and that the United States should not force from Cuba any more favorable terms, political or commercial, than are accorded to other countries.

In fact, the controlling political element is the Revolutionary party, which is opposed to a continuance of American authority and desires immediate and complete independence. Delegates were elected under a restricted franchise; but the principal candidates were leaders in the Cuban revolutionary forces, and most of them were elected over conservative opponents who presumably favor an American protectorate, at least as a guarantee of future peace and prosperity.

The Cubans are now confronted with the first severe test of their ability to think for themselves in political matters. Their behavior in this convention will to a great extent determine the measure of political independence that the Congress of the United States will at last grant them. There are many hot-headed and extreme anti-American politicians in the Revolutionary party, and we shall hear from them much fervid oratory, some of which will cause amusement, some of it, perhaps, anger; and the temper of the convention will be a good indication of the ability of the Cubans to govern themselves.



THE HALL OF FAME.
Within the Colonnade, showing where the Tablets will be placed.

From the Faculty Road.

Many patriotic Cubans believe that Cuba needs the United States more than the United States needs Cuba. This opinion is shared by the Americans who have been in control in the island for nearly two years.

The work of the convention must cause a clearer formulation, too, of our immediate purpose with regard to the island. Thus far we have drifted. We are pledged to grant the Cubans freedom, but we are not pledged to do it till we are sure that they have established a government which they can maintain without our help. Whether or not they show themselves capable at once of complete self-government, the United States is keeping its faith; and it is a rare sight, and a good one, to see one nation present freedom to another that had been long oppressed.

A HALL OF FAME

ANY institution may make a hall of fame and put in it whose name soever it will (or any citizen may make himself such a hall if he wish); but it so happens that nobody has made one but the New York University. Straightway, of course, other persons have vigorously fallen foul of these judgments of greatness, as it was to be expected of those who will make no halls of their own. Down with a Hall of Fame unless it be of one's own making! But in this enterprise, as in most others, the work of the men who have built a Hall, however foolish it may be, stands; and the criticisms of it, like most other criticisms, have already been blown to sea.

New York University received a gift of $100,000 with which it built a colonnade 500 feet long on University Heights, a beautiful site in upper New York City, overlooking the valleys of the Harlem and the Hudson. One hundred and fifty panels, two feet by eight, will bear simple inscriptions of the names and dates of birth and death of the famous native Americans who are chosen as our one hundred and fifty greatest men. Fifty are to be chosen this year, and five every five years thereafter till the year 2000. Everybody was invited to make nominations; and such nominations as were seconded by the Senate of the University were submitted to a hundred judges, representing every state in the Union. These judges were university and college presidents, professors of history, scientists, publicists, editors, authors, and judges of the supreme court, national and state. Ninety-seven of these sent in their votes, and twenty-nine great men, native and ten years dead, chosen by this vote, and thereafter ratified by the Senate of the University, are the first of these immortals.

Now, any man can make for himself a roll of great Americans that shall be better than any hundred men can make for him. But allowing for the infirmities of other men's judgment, every man must admit that these twenty-nine names are the names of great men, some of them of very great men, a few of them of the greatest men in history. And the list includes perhaps fifteen that would appear on the list made by any intelligent person. But their order presents some surprises. That Marshall should stand so high in the list shows the well-balanced influence of the legal men among the judges who voted. That Webster stands third also is a surprise; and the professional literary class, of this particular year and present fashion, would not have chosen Emerson, Longfellow, Irving, Hawthorne in this order,—leaving out Bryant, Poe, and Cooper; but they are likely to be added hereafter. Lowell has not been dead ten years and is not yet eligible. Bryant failed by three votes, Greeley by five, Motley by nine. The most animated discussion has been provoked by the selection of General Robert E. Lee. But since only a minority of the judges were Southern men, the vote for him was at least not sectional. The names of twenty-one other great men will be added to the list.

ROLL OF NAMES CHOSEN FOR THE HALL OF FAME, AND THE NUMBER OF VOTES THAT EACH RECEIVED

George Washington	97
Abraham Lincoln	96
Daniel Webster	96
Benjamin Franklin	94
Ulysses S. Grant	92
John Marshall	91
Thomas Jefferson	90
Ralph Waldo Emerson	87
Henry Wadsworth Longfellow	85
Robert Fulton	85
Washington Irving	83
Jonathan Edwards	81
Samuel F. B. Morse	80
David Glasgow Farragut	79
Henry Clay	74
Nathaniel Hawthorne	73
George Peabody	72
Robert E. Lee	69
Peter Cooper	69
Eli Whitney	67
John James Audubon	67
Horace Mann	67
Henry Ward Beecher	66
James Kent	65
Joseph Story	64
John Adams	61
William Ellery Channing	58
Gilbert Stuart	52
Asa Gray	51

This Hall of Fame will be a popular educational influence of very great value, and of greater value when mural paintings and statues and busts shall have been added. It is another attractive addition to the beauty of New York; and now the two most commanding eminences in the city are crowned with institutions for higher learning, one with a noble library, the other with this Hall of Fame.

THE REAPPORTIONMENT OF CONGRESS

IT will be the duty of Congress to make a reapportionment of representatives in Congress, based on the new census. The congressional districts are now made on the basis of one representative for every 173,901 inhabitants. The new apportionment will probably be one representative for every 200,000 inhabitants. Such an apportionment would increase the membership of the House of Representatives from 357 to 377, and of the Electoral College from 447 to 467.

If this scale of apportionment be adopted, the following states which voted for McKinley in November will gain a member or members of Congress: Connecticut 1, Illinois 2, Massachusetts 1, Michigan 2, Minnesota 2, New Jersey 1, New York 2, North Dakota 1, Pennsylvania 2, Washington 1, West Virginia 1; total 16; and Kansas will lose 1, Nebraska 1, and Maine 1, leaving a net gain of 13.

Of the states that voted for Bryan, Arkansas will gain 1, Colorado 1, Florida 1, Louisiana 1, Mississippi 1, Missouri 1, Texas 2; total 8; and Virginia will lose 1; a net gain of 7.

The reapportionment of members of Congress has not often provoked partisan wrangles. The new reapportionment on account of the great urban growth in the states that this year voted for Mr. McKinley, but especially because of the unprecedented victory (by states) for the Republicans, will give them the advantage — a gain of 13 against a Democratic gain of 7.

Whether an effort will be made to cut down the representation in the Southern states because of the elimination of the negro vote, we shall hear as soon as the session's plans are outlined.

NEW POLITICAL SENTIMENT IN THE SOUTH

SOMETIMES an event that has forever been going to happen does at last come to pass; and the South may yet suffer a division of political opinion. The building up of a Republican party there has been too hard a task for any Republican administration, for no Republican administration has ever understood that the Southern white man's point of view has been social not political; but what Grant and Hayes and Harrison and McKinley could not do to win votes, Mr. Bryan has done to repel them. How easily the large number of "McKinley Democrats" will fall back into the Democratic party will depend on Mr. Bryan's successor as the Democratic candidate for the Presidency and on the Republican temper the next four years. But the large vote cast for McKinley electors in these states, by men who have always been Democrats, is a new political phenomenon.

We have been told for years that if the negro vote were eliminated, the Southern white vote would be divided on National questions. But the negro vote has long been eliminated by statute in South Carolina, Mississippi, and Louisiana, and more recently in North Carolina, and by other methods in some of the other Southern states; and until this year the predicted result did not follow. The prediction was evidently based on a false analysis of the nature of party changes, especially in conservative communities. It has been assumed that masses of men change their habits or their point of view by logical processes, whereas they very seldom do. They change in obedience to events or as a result of action. Doctrine, divorced from action, is dead in politics as in most other departments of human conduct.

The South has become more prosperous than it ever was. A larger number of persons there are well-to-do than ever before. Cotton mills send their product to China; iron mills send their product to Europe and to Africa; tobacco factories send their product to all countries; orchards and gardens give their yield fresh to the great cities; coal goes directly to Europe; grain from the northwest finds its exit by New Orleans; lumber is shipped in the form of furniture; cotton fetches a higher price than men in middle life remember; there is no fear of an epidemic from Havana; and trunk lines of railroad are teaching the lesson of great business organization. It is because of these activities and not because of political doctrines that energetic men prefer the gold standard to party loyalty and a foreign policy that commands respect to the traditions of the fathers.

Either of two results of this division of political opinion may follow. If the Democratic party again affirms its creed of 1896, these Southern men who voted for McKinley

will permanently desert it; or, if the Democratic party at the next election be more wisely led, they may return to it. In either event, the political representatives of most of these states ought henceforth to rise above the intellectual level of campaigns conducted to prevent "negro supremacy." If such a healthful change come, it is of little importance by what party name the new political life calls itself. The important thing for the South and for the Nation is that the character, the energy, and the intelligence of these people shall find more fitting representation in public life than they have found in recent years.

It would have a most wholesome effect if Southern men of character and substance would emphasize their independence of thought by immediately organizing a movement — whether they call it political or industrial — to hold together for future action those who stand for sound money and national honor. They could do much to remove the lifelong feeling of independent men elsewhere that freedom of opinion and action is not to be expected in the South. Both Southern character and industrial activity would gain enormously by such a movement. It would be a long step towards leadership again.

IN EARNEST ABOUT THE ISTHMIAN CANAL

THE cutting of a canal across the isthmus of Panama is one of the inevitable and necessary great tasks that must be done by the United States Government. So long as we kept the mood of timidity and were content with the partisan discussion of our own parochial political subjects, private companies played with it. Now that we have risen to the realization of our true place among the nations and have taken on a mood of action, it is the general belief that the canal will be cut. It is indeed the expectation of the world. The over-conservative will yield, and the opposition of transcontinental railroads, if such opposition exists, will be overcome.

Soon after the assembling of Congress, the Isthmian Canal Commission will make a unanimous report to the President in favor of the Nicaraguan route; and the Report will declare that the canal can be cut at a total cost within the $140,000,000 allowed in the Hepburn bill which passed the House of Representatives last winter by a large majority. This bill has been made a special order in the Senate for December 10. While a number of senators are opposed to taking any action until the English treaty is disposed of, it is probable that the closing session of this Congress will be made historic by the enactment of a measure of incalculable importance to the whole world; for the canal will be one of the greatest practical achievements in all history.

The bill, as it passed the House, provides for the construction of a waterway for vessels of the largest tonnage from Graytown on the Atlantic to Brito on the Pacific, by way of the San Juan River and Lake Nicaragua, a distance of 187 miles. It provides for an appropriation of $10,000,000 to begin the work, and suggests such progressive appropriations as may be necessary to finish it, the total cost not to exceed $140,000,000. The President is authorized to secure from Costa Rica and Nicaragua the necessary right of way and to dispose of all vested rights and franchises interfering with its construction. The canal is to be built directly by the Government, under the authority of the Secretary of War; and the engineering work is to be done by officers of the Army and Navy Corps.

THE NEW CANAL TREATY WITH ENGLAND

AN important matter to be settled in connection with the Isthmian Canal is Great Britain's rights and interests on the Isthmus. Many distinguished authorities on our diplomatic history maintain that the Clayton-Bulwer treaty is still in force, which, indeed, seems clear. England undoubtedly possesses certain rights on the eastern shore of Nicaragua, somewhat hazy in outline as they are. Yet they are of sufficient definiteness to make trouble if they were ignored by us and if Great Britain chose to exercise her rights. Moreover, there is the duty laid on us of perfectly fair and frank dealing with her.

When Secretary Hay formulated the pending treaty with Great Britain defining the conditions under which the United States should build the canal, he formally acknowledged that the Clayton-Bulwer convention was still in force. The Department of State preferred to give Great Britain the benefit of any doubt on this score, and to dispose of

the Clayton-Bulwer pact in a diplomatic way rather than to follow the advice of several members of Congress and "lynch" it.

This Hay-Pauncefote treaty is one of the first subjects to be considered by the Senate. The friends of the treaty expect it to be ratified; but the ratification of a treaty requires a two-thirds vote, and as the Senate is now constituted, it will at best have no votes to spare. The objection made to the treaty is the provision whereby the United States binds itself not to fortify the canal, and agrees to leave it open, in case of war, to the vessels of belligerents.

To the lay mind the treaty seems a reasonable one; and to grant the concessions asked by Great Britain is surely a cheap price to pay for the complete removal of the one international difficulty that stands in the way of the construction of the canal. Moreover, if the voice of the people on November 6 were in any sense the voice of God, it ought to be reasonably plain that crying out against amicable and even coöperative relations with Great Britain is at last become a vain cry.

BRITISH AND GERMAN CABINET CHANGES

ON October 18 it was announced that Count von Bülow had succeeded Prince Hohenlohe as German Chancellor. Eleven days later the reorganization of the British Cabinet which was expected to follow the election began with the elevation of Lord Lansdowne from the War to the Foreign Office, vacated for him by Lord Salisbury. In neither case does the change amount to much, so far as foreign affairs are concerned. Hohenlohe is eighty-two years old; von Bülow rises from the Foreign Secretaryship, which he still retains; and since the retirement of Bismarck, the Chancellor's power has been largely in the hands of the autocratic Emperor. In England, Lord Salisbury, retaining the Premiership, still holds the entire field under his survey, and retains a guiding influence, while relieving himself of the burden of departmental business.

Lord Lansdowne's promotion is due to the fact that he had the misfortune to be in the War Office just when the test of the Boer war revealed that its whole mechanism was antiquated. That he must give place in that office to some new man who can assume its duties with the shibboleth of reform in his mouth proves neither his inefficiency nor the contrary. But this question of army reform, together with China and South Africa, is the serious task of the hour in English politics. It is certain to become a party issue, though along what lines cannot be known until the Ministry announces its programme to the new Parliament.

Mr. Chamberlain remains Colonial Secretary. This was formerly one of the less important cabinet offices, but the rising tide of imperial sentiment in England gave him his opportunity, and the Boer war now leaves him its legacy of troubles. During the coming session of Parliament one of the storm centres is certain to be in his neighborhood.

Another minister who is certain to receive the attention of the Opposition is the Earl of Selborne, Lord Salisbury's son-in-law. He rises into the Cabinet from the Under-Secretaryship for the Colonies, to take Mr. Goschen's place as First Lord of the Admiralty. Mr. Goschen was always a tower of strength on the floor of the House of Commons, but the Admiralty has been in much the same case as the War Office, and Conservatives as well as Liberals are demanding new blood and root-and-branch reforms. Whether these will follow remains to be seen. Many of Lord Salisbury's supporters are by no means satisfied with the new appointments, in making which he has shown characteristic indifference to criticism.

THE ANGLO-GERMAN ALLIANCE

NOTHING in Lord Salisbury's conduct of the Foreign Office has quite equalled his last triumph. His first steps in this field were taken under a malign influence. Beaconsfield sent him to Constantinople in 1876, when war was on the point of breaking out in the Balkans, and on the termination of that war took him to the Congress of Berlin as his associate. Heir to the mistakes which fear of Russia inspired in Beaconsfield, Lord Salisbury's conduct of affairs in the nearer East has brought him little credit. The Armenian massacres and the Cretan troubles have been the latest fruits of this policy.

In the far East he has until now been hardly more successful. So much the more surprising then is the *coup* of the Anglo-German alliance. That alliance may be of deep

significance in European politics. For a generation the policy formulated by Bismarck, of cultivating the friendship of Russia and avoiding the friendship of England, has been steadfastly pursued in Germany. This was for her a matter of strict necessity. With France longing for revenge on one side, Germany's national existence depended on remaining in the good graces of Russia on the other side. In spite of his personal admiration for England, Bismarck never lost an opportunity of stirring up feeling against that country. He feared the consequences of a *rapprochement.*

Now for some months such a *rapprochement* has seemed to be taking place, and to be a part of the Emperor's policy. The family tie between the two reigning houses has been emphasized. Both at the time of the Fashoda incident and during the Boer war Germany is said to have rendered England important services, and to have somewhat cut loose from Russia. Her action in seizing Kiao-Chan must have been a very disagreeable surprise to the latter country, which in 1895 had been able to draw both France and Germany to her support in interfering to prevent Japan getting a foothold on the continent of Asia — a course of action supposed at the time to have been brought about by the rivalry of these two countries for Russia's favor.

If Lord Salisbury has been able to win over to the policy of the open door in China so important an ally, if he has brought to an end the long period of English isolation and secured a permanent ally, and if Germany, developing so rapidly industrially, and with its new colonial ambitions, has decided that it is no longer necessary to cultivate the friendship of Russia at any cost, and that the country's best interests draw in another direction, Lord Salisbury has not only stopped all at once the clamor of the China party, which has been reproaching him for abandoning English interests without a struggle, but has opened a new chapter in European politics.

THE CENSUS OF 1900

THE Director of the Census, on October 30, announced the population of the United States — 76,295,220, an increase of 21 per cent during the decade. The population by states and territories, in 1900 and in 1890, is —

POPULATION OF STATES AND TERRITORIES

STATES	1900	1890	PER CENT GAIN
Alabama	1,828,697	1,513,017	20
Arkansas	1,311,564	1,128,179	16
California	1,485,053	1,208,130	23
Colorado	539,700	412,198	21
Connecticut	908,355	746,258	20
Delaware	184,735	168,493	10
Florida	528,542	391,422	35
Georgia	2,216,239	1,867,353	20
Idaho	161,771	84,385	92
Illinois	4,821,550	3,826,351	23
Indiana	2,516,463	2,192,404	15
Iowa	2,251,829	1,911,896	17
Kansas	1,469,496	1,427,096	3
Kentucky	2,147,174	1,858,635	16
Louisiana	1,381,627	1,118,587	22
Maine	694,366	661,086	5
Maryland	1,189,946	1,042,390	14
Massachusetts	2,805,346	2,238,943	25
Michigan	2,419,782	2,093,889	20
Minnesota	1,751,395	1,301,826	34
Mississippi	1,551,372	1,289,600	20
Missouri	3,107,117	2,679,184	16
Montana	243,289	132,159	84
Nebraska	1,068,901	1,058,910	1
Nevada	42,334	45,761	Loss.
New Hampshire	411,588	376,530	9
New Jersey	1,883,669	1,444,933	30
New York	7,268,009	5,997,853	21
North Carolina	1,891,992	1,617,947	17
North Dakota	319,040	182,719	75
Ohio	4,157,545	3,672,316	13
Oregon	413,532	313,767	32
Pennsylvania	6,301,365	5,258,014	20
Rhode Island	428,556	345,506	25
South Carolina	1,340,312	1,151,149	16
South Dakota	401,559	328,808	22
Tennessee	2,022,723	1,767,518	14
Texas	3,048,828	2,235,520	37
Utah	276,565	207,905	34
Vermont	343,641	332,422	3
Virginia	1,854,184	1,655,980	12
Washington	517,672	349,390	28
West Virginia	958,900	762,794	26
Wisconsin	2,068,963	1,686,880	23
Wyoming	92,531	60,705	53
Total (for 45 States)	74,627,907	62,116,811	
Indians not taxed	44,617		

TERRITORIES	1900	1890	
Alaska (estimated)	44,000	32,052	
Arizona	122,212	59,620	
District of Columbia	278,718	230,392	
Hawaii	154,001	89,990	
Indian Territory	391,960	180,182	
New Mexico	193,777	153,593	
Oklahoma	398,245	61,834	
Indians, etc., on Indian reservations, except Indian Territory	....	145,282	
Total for seven territories, etc.	1,667,313	952,945	
Indians not taxed	89,541		

It is estimated that 84,400 persons in the service of the United States are stationed abroad;

a census of Porto Rico taken by the War Department on October 16, 1899, showed a population of 953,243; the total number of Indians not taxed, in the states and territories, is 134,158.

The lowest rate of growth was in Nebraska (1 per cent) and in Kansas and Vermont (3 per cent). Maine shows an increase of 5 per cent, and New Hampshire of 9. The receding of population from the semi-arid parts of Kansas and Nebraska, and the end of the "boom" era, account for their slow growth; and their slow growth of population is by no means a fair index of the healthful, social, and economic condition of the states. They grew far too fast in preceding decades. Nevada has lost, as was expected, because of the decrease in the mining population. Texas has made the most noteworthy growth, not in the percentage of increase, but in absolute numbers. Along with Wyoming, Utah, Oregon, Montana, and Minnesota, it has profited most by immigration. It will probably not be many decades before Texas will outstrip every state in population except New York, Pennsylvania, and Illinois. The order of the most populous states now is, in even quarters of millions: New York, 7¼; Pennsylvania, 6¼; Illinois, 4¾; Ohio, 4¼; Missouri, 3; Texas, 3; Massachusetts, 2¾; Indiana, 2½; Michigan, 2½; Iowa, 2¼; Georgia, 2; Kentucky, 2; Wisconsin, 2; Tennessee, 2.

Apart from the newest states which have shown a rapid rate of growth by immigration, the most noteworthy fact is the steady and healthful growth of the great manufacturing states: Massachusetts, 25 per cent; Connecticut, 20; Rhode Island, 25; New York, 21; Pennsylvania, 20; New Jersey, 30. In the middle west, Illinois, 23; Ohio, 13; Michigan, 20. The growth of Minnesota (34 per cent) is one of the most noteworthy facts shown.

Although the rate of increase is only 21 per cent, the Director of the Census has said that the total population of the country is at least a million more than was predicted by the best estimates. The higher percentage of increase in previous decades was due to a much greater extent to immigration; and, besides the decrease of immigration, there has been a smaller birth-rate, as was to be looked for.

The rates of increase shown by preceding censuses were: —

RATE OF INCREASE SHOWN BY EACH CENSUS

1800	35.10	1850	35.87
1810	36.38	1860	35 58
1820	33.07	1870	22.63
1830	33.55	1880	30.08
1840	32.07	1890	24.85

President Pritchett, of the Massachusetts Institute of Technology, has made an interesting calculation of the probable rate of increase during the next century and a half. For 1910, his estimate is 94,673,000; for the year 1950, 190,740,000; for the year 2100, 1,112,867,000; for the year 2500, 11,856,302,000. Shades of Malthus, what a mass of humanity that will be!

A LAND OF GREAT CITIES

THE drift to the cities has not been as strong as it was during the preceding decade. Yet their growth in population has, of course, been much more rapid than the growth of the country. The increase of the whole population was 21 per cent; the increase of population of the 159 cities that have each more than 25,000 inhabitants was 32.5 per cent. In the decade from 1880 to 1890 it was 49.5 per cent.

The more one analyzes these statistics of population, the clearer it becomes that the decade has been one of natural and normal growth. It has been the decade distinctly of the increase of manufactures and of the growth of manufacturing populations. Hitherto the most conspicuous fact shown by the census was the growth of agricultural populations.

The cities of Massachusetts, for example, have increased 32 per cent, the increase in the whole state being 25 per cent. New Bedford shows 53 per cent, Fall River and Lawrence more than 40 per cent, Brockton 47 per cent, Worcester 40 per cent. All these are manufacturing cities. Unofficially it has been given out that the number of manufacturing establishments in the whole country has increased from 355,000 in 1890 to about 600,000 in 1900. The increase of manufactures is the most striking fact of the decade.

The rank in population of the principal cities now is:—

RANK OF CITIES IN POPULATION

Cities	Population	Cities	Population
New York . .	3,437,202	Pittsburg . .	321,616
Chicago . . .	1,698,575	New Orleans .	287,104
Philadelphia . .	1,293,697	Detroit . . .	285,704
St. Louis . .	575,238	Milwaukee .	285,305
Boston . . .	560,892	Washington .	278,718
Baltimore . .	508,957	Newark . . .	246,070
Cleveland . .	381,768	Jersey City . .	206,433
Buffalo . . .	352,387	Louisville . .	204,731
San Francisco .	342,782	Minneapolis .	202,718
Cincinnati . .	325,902		

The balance between the urban and the rural population seems to be as nearly a wholesome and normal one, under modern conditions, as could be hoped for — a more wholesome balance than any European country presents. It gives evidence of the strong counter-movement out of cities to suburbs and to the country.

THE GROWTH OF EUROPEAN POPULATIONS

SIR ROBERT GIFFEN, the English statistician, has been forecasting the growth of population in European countries. He declared in an address in Manchester late in October, that the population of Europe and of countries whose people are of European origin was 170 millions a century ago; it is now 500 millions — practically a threefold increase. This rate is much larger, of course, than of any preceding century. War and pestilence have during the last half century done little to keep the population down, in comparison with their former devastations. The English race in both hemispheres has increased most rapidly, and Germany and Russia come next in the growth of population, for France and Austria have lagged very far behind — have, by comparison, been almost stationary.

The probability is that this total of 500 millions of European peoples will a century hence become 1500 millions or more. But there is no probability of any considerable increase in the yellow and black nations. We shall simply outgrow the "yellow peril."

Sir Robert extended his calculations to other subjects than population in the effort to make a fair measure of the relative economic and political power of each nation, with this result: The four great powers are the United States, the United Kingdom, Germany, and Russia, with France a doubtful fifth; and only these need to be taken into large calculations for the future.

"If," said he, "we consider that an empire like that of Britain has its strength rather diminished than increased by the possession of territories like India, then the United States having a larger European population than that of the British Empire may be considered the most powerful state in the world as far as population and resources are concerned. No doubt Russia has a much larger population, but the inferiority of the units is so great that the preëminence of the United States is not in question."

THE UNSOLVED PROBLEM IN CHINA

THE chief danger in the Chinese trouble that has kept the world in suspense, is yet, happily, avoided. The Powers have not dismembered the Empire nor fallen foul of one another. There may be no war for spoils nor the patching up of a makeshift arrangement to avoid war, but an enduring and satisfactory settlement as beneficial to China as to the western world. Such, at least, is yet the hope, though the future is uncertain. If it turn out so, the achievement will be more than a triumph of statesmanship; it will be a triumph of civilization, and a shining proof that the Hague Peace Congress stood for something more than a sentimental dream.

On October 2 France proposed to the other Powers a possible basis for peace negotiations. This contained six points: the punishment of guilty leaders, prohibition of the sale to China of munitions of war, indemnities for actual losses, a permanent foreign guard for Pekin, the dismantlement of fortifications, and foreign military control of the road from Pekin to Tientsin. Several Powers suggested modifications, and it was finally decided to permit the ministers in Pekin to open negotiations with the Chinese plenipotentiaries Prince Ching and Earl Li on those points, to which all were agreed, and to discuss among themselves those on which opinion was divided. After some delay this programme was carried out.

Meanwhile an expedition composed of British, French, German, and Italian troops

was despatched to Pao-Ting-Fa, southwest of Pekin, where the Boxers had besieged and finally massacred a number of missionaries. The United States, Japan, and Russia declined to join in this expedition, and this seemed to indicate the line of cleavage between the Powers anxious for peace and those who might press hostilities further.

On October 20 came the most important development which the diplomacy of the far Eastern question has produced. England and Germany had concluded an alliance on terms, the full text of which every student of international affairs will have frequent occasion to refer to: —

"Firstly, it is a matter of joint permanent international interest that the ports on the rivers and littoral of China should remain free and open to trade and to every other legitimate form of economic activity for the peoples of all countries without distinction; and the two governments agree on their part to uphold the same for all Chinese territory as far as they can exercise influence.

"Secondly, both governments will not on their part make use of the present complication to obtain for themselves any territorial advantage in Chinese dominion, and will direct their policy towards maintaining undiminished the territorial condition of the Chinese Empire.

"Thirdly, in case of another Power making use of the complications in China in order to obtain under any form whatever such territorial advantages, the two contracting parties reserve to themselves the right to come to a preliminary understanding regarding the eventual step to be taken for the protection of their own interests in China.

"Fourthly, the two governments will communicate this agreement to the other Powers interested, especially Austria-Hungary, France, Italy, Japan, Russia, and the United States, and invite them to accept the principles recorded in it."

This ended doubt on one score, for Germany had from the beginning been the Power whose designs had remained undefined. Taken with Russia's previous declaration that she would withdraw from Manchuria "if the action of the other Powers be no obstacle thereto," this agreement seemed to insure the preservation of the Chinese Empire — at least to avoid danger of dismemberment by the Powers. It threw the whole weight of Germany, whose policy has hitherto been protective and exclusive, into the scale with England, Japan, and the United States, the nations that desire the open door; and it seems to make it certain that throughout the greater part of China, at least, this liberal policy will prevail.

This is a matter of great importance to the United States. But no nation will gain more from it than China will gain, if the Empire can be preserved. Behind economic and industrial freedom march Western civilization and all the active forces of the modern world. To one thing China's exclusiveness must yield — her own love of gain. Trade can conquer, and surely can civilize, faster than armies, and convert a people more quickly than missionaries.

In the meantime the Ministers of the Powers at Pekin have been holding conferences with the Chinese plenipotentiaries, in the effort to reach an agreement preliminary to a final agreement by the Powers themselves. One grave difficulty encountered is the punishment of prominent offenders.

It is certain that the Imperial Government itself attacked the legations. The concurrent evidence of trustworthy men of nearly all nations who were among the besieged makes this clear. The Chinese Government, in other words, fell completely under the influence of the Boxers. It thought to make an end of foreign influence in China. But the Chinese Government is capable of now pursuing a directly opposite policy, under the pressure of events. But who is the Chinese Government? If it be the Empress Dowager, there will continue to be instability at Pekin. If she retire or be deposed, and the Emperor assume real authority, by the help of foreign Powers the dynasty may possibly be maintained.

The Chinese plenipotentiaries, when this record is closed, are reported as declaring the negotiations hopeless. The Chinese government will not agree to the execution of some of the high offenders that the ministers are said to demand. Conjecture has a wide scope until the preliminary agreement of the ministers is discussed by the Powers.

In the meantime the best-informed men express the gloomiest views. Sir Robert Hart, who knows China and the Chinese perhaps better than any other European, declares the situation hopeless. Dismemberment at once or a swift conversion of the whole

people to Western civilization are the alternatives that he sees. The great danger now seems to be that the Empire may fall to pieces by its own weight during the protracted discussions of the ministers and the later negotiations of the Powers themselves. The continued absence of any central government in China may seem to make military occupation a necessity.

In any event the decadent central government of the Empire will have to be stimulated to maintain itself and to exert a liberal influence, by the presence of the Powers and the fear of force. The intense national feeling of the Chinese may, and for the present probably will, preserve the Empire so long as there is even a show of central authority. But the inherent weakness of a central government made up of loosely joined provinces, each with a powerful viceroy, is indicated by the recent serious outbreaks in the south, which have interrupted commerce, and may cause fresh trouble with the allies.

One fact stands out as clearly as a bright star on a dark night: when we withdrew our troops we did a wise thing.

BARBAROUS REVENGE IN CHINA

ONE great blot on the conduct of the Powers in China is the shocking barbarities committed by some of the troops of some of the allies. No more sickening disgrace to Western civilization has ever been brought to light than these cruelties and horrors. The facts are too well attested to admit of denial. At the time of the Chino-Japanese war the world held up its hands in horror when it was reported that the Japanese had put prisoners to death. The fact was taken as proof that the nation was still semi-barbarous. But nothing like the wholesale massacres of all the men, women, and children in towns by the Russians in Manchuria was done by the Japanese. The scenes that followed the taking of Tientsin lacked none of the horrors that used to accompany the sacking of a mediæval town, and the ground marched over on the way to Pekin was left a hideous trail of ruin. Non-combatants were murdered for sport.

Most relentless of all have been the Russians. But against the Germans some well-authenticated accusations of gross cruelty stand. French soldiers have shown themselves lustful and lovers of art — ready to ruin women, and to risk their lives for a piece of lacquer work. In persistent and businesslike looting (fortunately for few worse crimes) some of the American troops disgraced themselves. The English have desecrated almost every Chinese institution. They have removed the tablets set up to the memory of the Manchu emperors, who are regarded as deities; and these have been sent to the British Museum. The British Museum contains other precious curiosities and works of art that have been got by conquerors; but this insulting pillage of the most sacred thing in all China causes a shudder of surprise and regret.

There was strong temptation and a great provocation to cruelty and plunder. But it is a sore pity, nevertheless, that the last year of the humanest of the centuries should find men, when released from the restraints of civilization, so close akin to man as he was before he developed civilization. The Boxer outrages on women of our own blood have indeed been avenged. But modern civilization did not demand their avenging in kind. The sickening aspects of this Chinese trouble are enough to make the whole world sad.

THE FUTURE OF CHINESE MISSIONS

THE status of the missionaries in China is one subject upon which an agreement must be reached. Lord Salisbury flatly declared last summer that they were not popular at the Foreign Office, because they often got into trouble and expected the government always to get them out again. Many public men (and not a few missionaries themselves) declare that the government should not concern itself about them, but that they should go where they please at their own risk, and take the consequences. But while the political cost of missionaries has been very serious, public opinion in every Christian country has been favorable to the government protection of them. After the severest criticism has been made of the conduct of some of them, the Christian world continues to give them credit for devotion and self-sacrifice. Public opinion still stands behind them, but probably with a diminishing enthusiasm.

To what extent they were a direct provocation of the recent anti-foreign outbreak must, after all accessible evidence has been weighed,

remain a matter of opinion. No missionary is popular among the people whom he seeks to convert. In the very nature of the case, he is an irritant. He is a subvertive influence; and except to his converts, he is necessarily an object of suspicion, if not of hostility. But since events sharply call up the whole subject of missionary activity, the lay student of missions encounters deep-lying questions like these: —

When the Christian world in general held a more strenuous faith and believed that the heathen would suffer personal damnation, the impulse to save men's souls by preaching was stronger than it now is. We now live in a period of the comparative study of religions. The broad-minded Christian recognizes to-day that his own religion has gradually unfolded. We have discovered that religious beliefs and forms are everywhere a part of the social fabric, and that established institutions cannot be torn away from a body politic without endangering the whole organism. Has the evangelical force of Christianity not become weaker, then, fading away from the desire to save souls into a mere humane impulse to spread well-being and civilization?

If this be the tendency, does the work not appeal to a less vigorous kind of men than it formerly did?

Will the missionary of the future not be rather an advance agent of Western civilization than of the creed of the Christian church? Will he not be the medical and the educational missionary rather than the apostle of the faith?

But such questions, after all, have to do with the future rather than with the immediate present; for many of the missionaries are men and women who do yet hold the most rigid orthodox doctrines as they were more commonly held a generation ago.

There were in China last year 2500 Protestant Christian missionaries, and 5000 native Christian workers. The evangelical church membership numbers 100,000, and the community many more. There are 12 universities and colleges, 66 theological and training schools, and more than 200 other schools of higher instruction, with about 10,000 pupils, besides 30,000 who are taught in the village schools. The number of patients who receive medical treatment in hospitals and dispensaries is many times the number of converts and pupils. These are figures of Protestant missions alone. The Roman Catholics claim a million converts and a much larger ecclesiastical establishment in China.

These facts indicate that missionary activity has already taken the form of general education; and the older conception of mission work has yielded to the conception of it as a general civilizing influence rather than the direct propagation of the Christian faith.

A MISSIONARY'S OUTLOOK

A fresh statement, from the missionary point of view, of the present aspects of mission work in China, has been made for THE WORLD'S WORK, by the Rev. Frederick Brown, an American Methodist missionary of the most robust faith and type, a man of as sturdy a nature as the early heroic missionaries whose lives are a precious part of our literature. Mr. Brown, having escaped to Tientsin, guided the allied troops to Pekin. He said since his return to New York: —

"Recent experiences will not appreciably disturb the missionary. He went to China with a purpose, and he will not return till it is accomplished. He has been a person of very considerable influence in China, and his influence has been made greater by recent events. The heads of all the government universities and most of the foreign professors have been connected with missionary societies, and are really missionaries. They have connected themselves with government institutions because they felt that their influence would be broadened. Hundreds of men and women of the recognized missionary societies are doing educational work directly under the eye of the Missionary Boards. The education of the Chinese people, in fact, is in the hands of the missionaries. They have translated many educational books into Chinese.

"I cannot look upon the missionaries as meddlers. They have a right to be interested in the government of the country, for of their number are many of the most intelligent men in China. Before I left Pekin, after the siege, Minister Conger suggested that the missionaries should come together in a conference to formulate a plan for the future, in which foreigners were interested. This they did, and the result has been published world wide.

"But because I believe so thoroughly in the unselfish intent and wide influence of most of the missionaries, let it not be thought that any one who

has lived and worked in China holds that there are no exceptions to the rule. We all have seen the missionary 'crank.' But such cases are uncommon, and they are not to any considerable degree to blame for the present state of things. The only suggestion that can be made regarding tactless missionaries is that the several societies and missionary boards use greater care in selecting candidates. They are likely now to do so.

"It has been asked whether the missionaries should be allowed inland and away from consular protection. This is entirely a matter of the missionary's personal risk. If the consul is unable to help him while he is doing what he feels to be his duty, the responsibility is his own. No missionary claims government protection while he is violating any treaty that has been made with China. The favored nation clause in the present treaty gives the missionary a right to reside in the interior and promises him protection. If that cannot be given, the Chinese promise to escort him to a port and to turn him over to the United States consul. No objection can be made to this, and if the government will allow the Chinese to evade their responsibilities, the missionary will have no help and will remain in the port near consular protection.

"After all, the present treaty is a fair one, and to it the Chinese government should be held: — 'Having stipulated for the exemption of Christian citizens of the United States and Chinese converts from persecution in China on account of their faith, it is further agreed that citizens of the United States in China of every religious persuasion and Chinese subjects in the United States shall enjoy entire liberty of conscience, and shall be exempt from all disability or persecution on account of their religious faith or worship in either country.'

"There can be no diminution of missionary zeal in China. If some have been killed, there are others ready to fill their places, and there always will be. The foreigners will not leave China nor will the Christian gospel. Plans may be modified, and the work will be carried on more judiciously and under better organization. There will be less conforming to heathen ways, and instead, perhaps more considerate attempts to teach the Chinamen the value of a better civilization and of true religion.

"The missionary has a duty deeper than temporary politics, a duty which no government or group of governments can perform. With the wisdom gained from bitter experience and with a larger hope, the missionary societies are planning for the work of the future. They need, and they will surely have, the good will and the aid of our own people. The present upheaval, notwithstanding bloodshed and war, presages a better day for China."

THE GENERALSHIP OF COMMERCE

COMMERCE must have its diplomacy no less than nations, and its generals, and its own policies and tactics. Especially is this true since the world has become so tightly wire-girt and so swiftly traversed that the whole earth is a market-place for every maker of wares for universal use.

But the mere making of wares of universal utility does not win a universal market, not even when the maker offers them cheaper than his competitors. Cheap and excellent manufacture is one thing. Effective massing and distribution is another thing. And herein comes the need of great generals in trade.

No better illustration of such a need could be found than is now given by the industrial condition of Germany. One of the great events of the latter part of the century has been the building-up of German manufactures. The government has in every way given its aid. The information collected and distributed for the guidance of manufacturers and traders is the most thorough and systematic in the world. The legend "made in Germany" stamped on manufactured articles of every kind caused consternation in England a year or two ago. In fact, all Germany that is not under arms is in the workshop, and the strides of German commerce are as remarkable as the rise of German scholarship was a generation ago, and as the rise of German military and political power was under Von Moltke and Bismarck. But now German manufacturers are feeling a restriction of their recent prosperity. The trade reports reflect it, and the commercial world is becoming aware of it. They are selling many wares without a profit.

And the reason is an unscientific preparation for the distribution of products. In one respect the great industrial movement of Germany has not been well generalled. The Germans have put all their capital into factories, buildings, machinery — plant. They have "fixed" their capital — made it stationary. They have laid too much emphasis on the making of things, too little on their distribution. After a period of most energetic production in Germany, in England, and in the United States, the Germans find that they lack mobile capital. Too much of their industrial strength is in camp. They are forced to

borrow mobile capital from England. American and English exporters therefore are not yet finding German competition as severe as they feared, because of this lack of good commercial generalship.

This incident in German commercial experience, whereby German manufacturers are suffering a falling away of prosperity, would a little while ago have been explained as the manifestation of some unseen and mysterious force — explained on a wild theory of the necessary periodicity of prosperity and panics. It would even have been explained by reference to spots on the sun. But now even men who never read Bagehot begin to see that world commerce has its laws. It moves to the advantage of one people and to the disadvantage of another, not by accident nor chance, but in obedience to well-directed energy. But nowadays the vision of its generals must be world-wide. A continuous period of commercial prosperity may be won by the right knowledge of world-wide forces. Cheap material, efficient workmen, cost-saving machinery, cheap transportation, cheap insurance, sound money, good credit, effective banking and exchange, good telegraphic service, the effective policing of foreign ports and countries, favorable duties, trustworthy foreign agents and easy distribution in foreign lands, mobile capital, an accurate and fresh knowledge of foreign markets and of possible markets, — all these things and many more are necessary for the successful extension of any national commerce to-day. And when all these are had, generalship is still necessary.

CHARACTER THE BASIS OF TRADE EXPANSION

BUT it is not by generalship alone that we are winning foreign markets. It is by the development of the most efficient men in the workshops and all along the line to the ultimate maker of great contracts. The character of the British workman, who was for a long period the most efficient in the world, — as Carlyle expressed it, "the strongest, the cunningest, and the willingest our earth ever had" — is suffering gravely from the restrictions imposed on him by the trades unions. These limit the amount of work he shall do, restrict him in the use of machinery, and lessen his chance of individual development. For this reason among others, the distinction of the greatest efficiency, measured in the worth of his product, has passed to the American workman. Other reasons for the rise of the American workman to primacy will be found in the spirit of many American workshops, which is explained in an article in this magazine on the Betterment of Working Life.

In the last analysis permanent industrial success, as success of any other kind, rests on individual character and capacity. The nation that has the most efficient workmen, the wisest employers, the best masters of transportation, the most far-sighted merchants, the most accurate students of foreign peoples, all working together under the most capable leadership, will win the largest share of profitable commerce and will hold it. Success depends on individual character as well as on good generalship.

Yet in this imperial sweep of our activities which give such scope for individual character and ability as was never before open to men — for never before did commerce so directly depend on character and broad knowledge nor contribute so much to civilization and all the nobler arts — we are sometimes told by men who know nothing of the great forces of the modern world that chances for young men are lessened and that our commercial expansion is degrading the American ideal to a sordid view of life!

AMERICAN COMMERCIAL LEADERS

THE prodigious strides that we ourselves are making in foreign trade likewise demonstrate the value of good commercial generalship. The statement recently issued by the Bureau of Statistics of the Treasury Department shows that our export of manufactured articles alone (not our agricultural products) had for the nine months from January 1 to September 30, brought more than $1,000,000 a day including Sundays and holidays, or nearly $1,500,000 for every working day — a sum three times as great as the value of manufactured exports during the same months of 1900, and two-and-a-half times as great as in 1895.

The items of this increase are chiefly of those great industries that command managers of the highest ability — the products of iron and steel, of mineral oil, of copper, of

wood, of leather, of cotton, agricultural implements, chemicals, cars, paper, tobacco, and the like. For instance, a Pittsburg car company in November received (in London) a contract for $5,000,000 worth of rolling-stock for South African railways. The bid of the American company was lower by a third than any European company's bid, and the time of delivery eight months less. And this is only one in a long series of contracts that American manufacturers have secured from South African railways.

American advance into European markets, so long as it was chiefly confined to agricultural products, was complacently regarded by European economists as only a natural result of the soil; for they forgot the important part that agricultural machinery and labor-saving transportation devices played. Good management and good generalship have had much to do even with the building up of our agricultural exports. One great American provider of meat-products maintains a more extensive and accurate meteorological survey of the world than any government, in order that he may forecast the needs and the buying capacity of the people of every country.

A fair statement of the trade relations of the three great manufacturing nations was made in the October number of *The Fortnightly Review* by Benjamin Taylor: —

"We are inclined to believe that German competition with us in the world's markets has reached its high-water mark. On the other hand, the real strength of the industrial competition of America has yet to be felt. The measure designed to revive the American mercantile marine did not pass through last Congress, but some measure of the sort will certainly become law within the next four years if the Republicans are confirmed in power. Even now American manufacturers are sending ship-building material to this country, not at a sacrifice and merely to lighten their stocks, but at remunerative prices. America has obtained and will retain the lead as the greatest iron and steel producer in the world. And as such she is compelled both to increase her home market by ship-building and to obtain foreign markets.

"As for American coal, it has certainly come to stay in Europe, though it may cease to come to Great Britain when our inflated industry is restored to normal condition. It is not necessary, however, for American coal to come into our ports in order to make a serious inroad upon our foreign trade."

PROFESSOR MAX MÜLLER

IN the death of Professor Max Müller the world lost one of its distinguished men, and England one of its most interesting personages. He belonged to a group who, during the last half century, represented Oxford to the outside world — an Oxford which was rather the expression of an *ethos* (as Oxford slang has it), *i.e.* an attitude, toward knowledge, than an aspect of knowledge itself. An Oxonian would never think of putting him along with Arnold, Newman, and Jowett, and on the surface his life seems to have had little in common with that of these men. But he represented a scientific ideal that was of the same stuff as Arnold's critical ideal, Newman's religious ideal, Jowett's ethical ideal, and with them he forms part of the literary humanistic movement of the middle of the century. All these men were interesting personalities rather than apostles of any enduring system of thought.

Max Müller's successor will probably be a man who represents the strenuous modern scholarship. For the days of the urbane and leisurely learning of the mid-century are numbered, and its literary aspects no longer command the attention they once did. They have given way to something more capable of standing the stress and strain of modern life.

It is too soon to estimate Max Müller's real achievement in the work of the world. He moved in the midst of hostilities and jealousies whose bitternesses have even crossed the Atlantic, to cloud the judgments of those who might otherwise be able fairly to judge his work. Popularly, his achievement appears to have been one of scientific scholarship. For his "Science of Language" has long been one of the few books on language that the public has cared to read, and Max Müller's name has long stood for a system of mythology that the general public, while really knowing very little about it, has elevated to a science. But his book on language and his system of mythology have neither of them ever taken a place among the serious contributions to the science of which he was professor at Oxford.

Granting this weakness, such books have their uses, and often no mean ones; his have undoubtedly paved the way among men who are not scholars, for a true conception of lan-

guage and literature. The workers in this field are, as a rule, unable to see the wood on account of the trees, in the study of language confused by words, in the study of literature confused by books. So that these subjects still await a mind and hand like Max Müller's to infuse life into them.

A RIGHT INDIAN EDUCATIONAL PLAN

OUR North American Indians were once among the most expert basket-weavers in the world. Now only the older Indians know the art, and certain tribes whose work was incomparably fine and beautiful have already lost it. After much pauperizing under the abominable reservation system, it was decided that the Indians needed an industry to save them from sinking still lower. Lace-making, after Brussels and French patterns, was first superimposed on a Minnesota reservation, whence it has spread. Now lace-making, which has been developed by the European woman, fits her like a glove; and quite as truly, basket-making fits the Indian like a moccasin. Yet the Indians have succeeded at making lace, for they have remarkable skill with the fingers. But Commissioner Jones, the present enlightened administrator of Indian affairs, has taken up a task of human development in the right way and has made plans to revive basket-making by introducing it into the Government Indian schools, where the children, who now know nothing of this beautiful art, may learn from the only masters capable of teaching them, — their own people, directed by white teachers who know the needs of the constantly widening market. Hundreds of thousands of dollars' worth of baskets are imported from Japan and Germany every year — money which by every right should be earned by our capable and needy Indians; and better than the money they will earn is the satisfaction of doing what they do with surpassing skill.

A MODEL PUBLIC LIBRARY

ITS DEFINITE AND PRACTICAL UTILITIES — CHILDREN'S ROOM, INFORMATION DESK, INDUSTRIAL COLLECTION, TRADE CATALOGUES, "STANDARD LIBRARY" ROOM, AND BOOKS ON TIMELY SUBJECTS

BY

GEORGE ILES

MEMBER OF THE AMERICAN LIBRARY ASSOCIATION

AS a model public library in a city of moderate size, we may take that of Providence, newly housed at a cost exceeding $450,000, of which more than $260,000 was a gift from the late Mr. John Nicholas Brown. Unlike the New England rule, its maintenance is only in part municipal, with a constant stream of gifts testifying to the esteem and affection of its public. This institution is chosen because it incorporates the best modern practice in its administration with some original features of great merit, the whole conducted with a courtesy, an enlightened helpfulness, not exceeded in the world.

First as to its architecture: the plans were worked out in daily consultation with the librarian, Mr. William E. Foster; the intention has been to design rooms of such form and size as will best accommodate the various departments of the library, and so group these together as to promote the convenience of the public and the efficiency of the staff. Instead of the old-time method of beginning with an ornamental shell, and disposing the interior to fit that shell, the interior has first been carefully thought out, and then an exterior of great beauty has enwrapped it, discovering, as in so many other cases, that beauty may be the natural efflorescence of utility. As becomes a public building in a thriving and wealthy city, the materials throughout are rich and the decoration sumptuous, presenting withal an unceasing lesson in that good taste which is the prime element in good art. The hazard of fire is minimized by disposing the boilers for heat and power in a separate building, and by a

construction throughout of fire-proof marble, stone, and encased steel; the lighting is electric, preserving the purity of the air; the successive floors of the book-stacks are of thick glass to promote cleanliness and diffuse light. Swift electric lifts convey the books from four of the stack-stories. When a volume is to be dusted, it is struck over a bell-mouthed tube, through which a quick exhaust bears away every particle of dust.

From the handsome vestibule, we enter the large room devoted to children. The best books for the young are ranged upon its open shelves, and the tables are covered with illustrated magazines and papers. A lady of tact and training is in charge to aid the young folk in selection, and to answer the questions they are invited to ask, — a privilege freely exercised when their reading has to do with their lessons. Month by month, collections of books on birds or trees, on foreign lands or local history, are placed on the shelves, with intent to put a uniting thread through reading which otherwise might be haphazard and desultory.

Adjoining this large room for children is a smaller apartment where, on giving due notice, a teacher may bring her class, and find on a table the chief books in the library bearing on the theme of study, while the walls display every map and picture available for its elucidation.

We pass now to the main library. Its very full reference department is freely accessible; it contains many catalogues to tell the inquirer in what other libraries he may find books not to be had here. By a judicious plan, this library together with those of the Athenæum and of Brown University coöperate in their purchases, so as not to duplicate costly works seldom in demand; the three institutions jointly publish a monthly bulletin of accessions and other useful information. Beyond the limits of the Providence libraries, Mr. Foster exerts himself to procure loans from larger collections, whether in Boston, Washington, or elsewhere. This method is gradually becoming more and more general throughout the Union, so that to-day the common store of literature held by public, university, and state libraries is measurably at the service of a student anywhere in the land.

An admirable feature of the main room of Mr. Foster's is its Information Desk, where an officer of wide knowledge, long experience, and the patience of Job endeavors to reply to every query. As a rule, these questions are simple enough, coming as they do principally from visitors unfamiliar with indexes, catalogues, and bibliographies. At times, as when an inquirer asks how many toothpicks are exported from this country, a little delay is involved in the necessary correspondence. But taking one day with another, the "posers" are few, much fewer than one would imagine; and the desk, by its standing invitation, has a notable effect in furthering the usefulness of the library, and in giving an enlarged field to many a work of reference already in the homes of visitors. Opening from the main library is the periodical room. Here the shelves for the racks rise directly from the floor, economizing space where space is precious. The magazines equally with the filed newspapers are hospitably at the disposal of the public.

We return to the library proper and find its most striking department to be industrial. Providence is a city famous for its varied and ingenious manufactures; its machinery, machine tools, measuring instruments, silverware, and textiles are exported to every quarter of the globe. Every industry in the city has been canvassed with a view to its promotion by this library. Here are costly books of design from Paris, Berlin, and London to afford an architect an unhackneyed piece of decoration, or suggest to an inventor a better arrangement for a loom. Here, too, are beautifully illustrated books of birds, insects, flowers, and shells, abounding with hints to the devisers of new patterns and unwonted embellishments. These artists, indeed, are now asking for pictures of crystals and gems, for the revelations of the microscope and the polariscope, that nothing in air, earth, or ocean may be wanting in their quest for quaint and novel motives. For the convenience of copiers a draughting table is provided; near by is a dark room for the easier and speedier reproductions of the camera.

Noteworthy among the industrial books are the trade catalogues; these are issued as

advertisements pure and simple, but none the less they contain much trustworthy information, a great deal of it not to be had elsewhere, and the illustrations are usually capital. The concerns which publish these books are beginning to charge for them, and many of them are well worth buying, as, for instance, the volumes which recite how the pressure blower is supplanting the tall chimney, and how aluminium is manufactured by electricity for uses as diverse as those of soup kettles and the circuits of telegraphy.

All that Mr. Foster has done to promote the industries of Providence he has repeated for every other interest of the city. Every historical, scientific, literary, artistic, educational, or philanthropical society within the gates of Providence can find its best and most helpful literature within these walls, to the end that the library may be the rallying ground and centre of all that makes for the culture and advancement of the community. In this important matter of a careful adaptation of the contents of his shelves to the wants and needs of his public, Mr. Foster has followed in the steps of that Nestor of American librarians, Mr. S. S. Green of Worcester. Let us now examine a distinguishing feature of the Providence Library, original with Mr. Foster, and also deserving unqualified praise.

One of the handsomest rooms in the building, richly and quietly furnished in carved mahogany, much resembles the private library of a scholar of wealth and taste. This displays Mr. Foster's "Standard Library," a collection of less than a thousand of the greatest books of all time, few of them less than fifty years old, all in the best editions, and many of them with rare and authentic portraits. The purpose throughout has been to present the literature of power as distinct from books of either information or entertainment. Here are Chaucer, Bacon, Shakespeare, Spenser, Milton, Burke, Tennyson, and Thackeray; Homer and Sophocles; Virgil and Horace; Goethe and Schiller; Dante and Tasso; and their peers — all with a free invitation to be taken down and read. In the circulating department these masterpieces are to be had in duplicates, but the splendid impulse of this throne-room of letters is directed to whoever is forming a library of his own. A book never does us so much good as when we possess it — when we are free to take it up next month or next year — when we infringe no rule as we mark its nubby passages, or refer on the fly-leaf to the pages we mean to re-read. Of golden value then are the intimations of such a store as this, winnowed by that patient breath of time which at last unerringly divides the literature of the ages from the books of a day.

Let us now pass to another feature of the Providence Library not, as far as I know, developed so fully elsewhere. Mr. Foster has observed the attraction conferred by timeliness upon a book or an article. He knows that what makes newspapers popular is news, and that the vogue enjoyed by an informing book largely turns upon its treating a question of the hour. Accordingly for several years past he has noted every morning the theme uppermost in the public mind, — whether a presidential canvass, a threatened strike, or aught else; he then has drawn up a list of every important book, report, pamphlet, or article in his library bearing on that topic, and the list has been posted in the main room and published in the local press. In this thoughtful fashion much of his store goes into active circulation instead of gathering dust on the shelves; while the public of Providence has a special opportunity to be well informed on current questions where, often enough, much first-hand evidence is in danger of being overlaid by later but less reliable testimony. In addition, Mr. Foster often chooses themes of more than fleeting interest, as Paris and the Exhibition of this year, or American Colonial Architecture, and focusses light upon them from sources all but forgotten.

Just as we leave the building we enter for a moment the handsome hall in which lectures and addresses on literary themes are given. At a touch a broad white sheet may be lowered for stereopticon illustrations. The walls are covered with strong burlap, to bear photographs and other pictures as one exhibition succeeds another in a round of informing delight.

By this time, I trust, the public library of Providence commends itself to you as it does to me, as a model of what such an institution should be.

From a photograph.

A FUR SEAL PUP.

DISCOVERIES IN OUR ARCTIC REGIONS

THE HARRIMAN ALASKA EXPEDITION — HUNDREDS OF NEW ANIMALS, INSECTS, AND PLANTS — AN UNKNOWN FIORD EXPLORED — ASTONISHING SCIENTIFIC RESULTS OF A SUMMER'S CRUISE UP THE COAST — A SUGGESTION TO AMERICAN MILLIONAIRES

From painting by L. A. Fuertes.

THE concrete results of an enterprise form an enduring basis upon which to build an estimate of its success. Let us say first of all, then, regarding the Harriman Alaska Expedition, that (with most of the collections still far from completely classified) it is already known that this party of scientists, in their two months' trip from Seattle to Bering Sea and back, discovered between *three and four hundred* species and subspecies of animals and plants new to science; made important changes in the best previous maps; discovered scores of unknown glaciers; and immeasurably increased our knowledge of the Alaska fauna and flora.

Thousands of the greatest men of our time are devoting their lives in every quarter of the globe to the search after those manifestations of nature still uncharted by Science, — thinking themselves amply rewarded if from time to time they can extend the dominion of the mistress they serve over a single new form of plant or animal life; and in the light of this, one need not point out the magnitude of this expedition's achievement during the two-months' cruise up the Alaskan coast.

HOW THE PLAN ORIGINATED

The story of the expedition is so suggestive in several special ways as to merit telling in detail. In the spring of last year Mr. Edward H. Harriman, of the Union Pacific Railroad, decided, instead of going to Europe, to take his family to Alaska for a summer's trip. Naturally enough he did not care to confine himself to the regular excursion routes and boats, yet the cost of chartering a special steamer seemed out of reason merely for a personal outing. In this dilemma he hit upon the happy idea of taking with him a party of scientists, the value of whose observations and collections would, he felt, more than justify the expense of the undertaking.

Here is the list which, with Mr. Harriman's family and friends, made up the party of fifty: —

BIOLOGISTS AND ZOÖLOGISTS

Dr. C. Hart Merriam, U. S. Biological Survey.
Dr. A. K. Fisher, U. S. Biological Survey.
Prof. William E. Ritter, University of California.
Prof. D. G. Elliot, Field Columbian Museum, Chicago.
Dr. Wesley R. Coe, Yale University.

ORNITHOLOGISTS

Chas. A. Keeler, Museum of California Academy of Science.
Robert Ridgway, National Museum, Washington, D.C.
John Burroughs.

BOTANISTS

Prof. William H. Brewer, Yale University.
Dr. William Trelease, Missouri Botanical Garden.
F. V. Colville, U. S. Department of Agriculture.
Thomas H. Kearney, U. S. Department of Agriculture.
Prof. De Alton Saunders, Brookings, S.D.

GEOLOGISTS

Prof. B. K. Emerson, Amherst College.
G. K. Gilbert, U. S. Geological Survey.
Dr. Charles Palache, Harvard University.

ARTISTS

Louis Agassiz Fuertes (birds).
R. Swain Gifford.
F. S. Dellenbaugh.

PHYSICIANS

Dr. Lewis R. Morris.
Dr. E. L. Trudeau.

GLACIOLOGIST

John Muir.

PALÆONTOLOGIST, GEOGRAPHER, ETC.

Dr. W. H. Dall, U. S. Geological Survey.

MINING ENGINEER

W. B. Devereux, Glenwood Springs, Col.

FORESTER

Dr. Bernhard E. Fernow, Cornell University.

GEOGRAPHER

Henry Gannett, U. S. Geological Survey.

ANTHROPOLOGIST

Dr. George Bird Grinnell, Editor *Forest & Stream*.

ENTOMOLOGIST

Prof. T. Kincaid, Seattle, Wash.

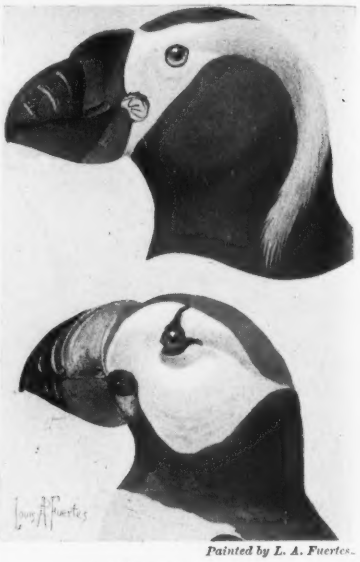
TAXIDERMISTS

E. C. Starks, U. S. Biological Survey.
Leon J. Cole, Ann Arbor, Mich.

PHOTOGRAPHERS

E. S. Curtis, Seattle, Wash.
D. G. Inverarity.

The larger portion of this impressive body of experts left New York on May 23d in Mr. Harriman's special train, and the complete expedition sailed from Seattle the last of May in the steamer *George W. Elder*.



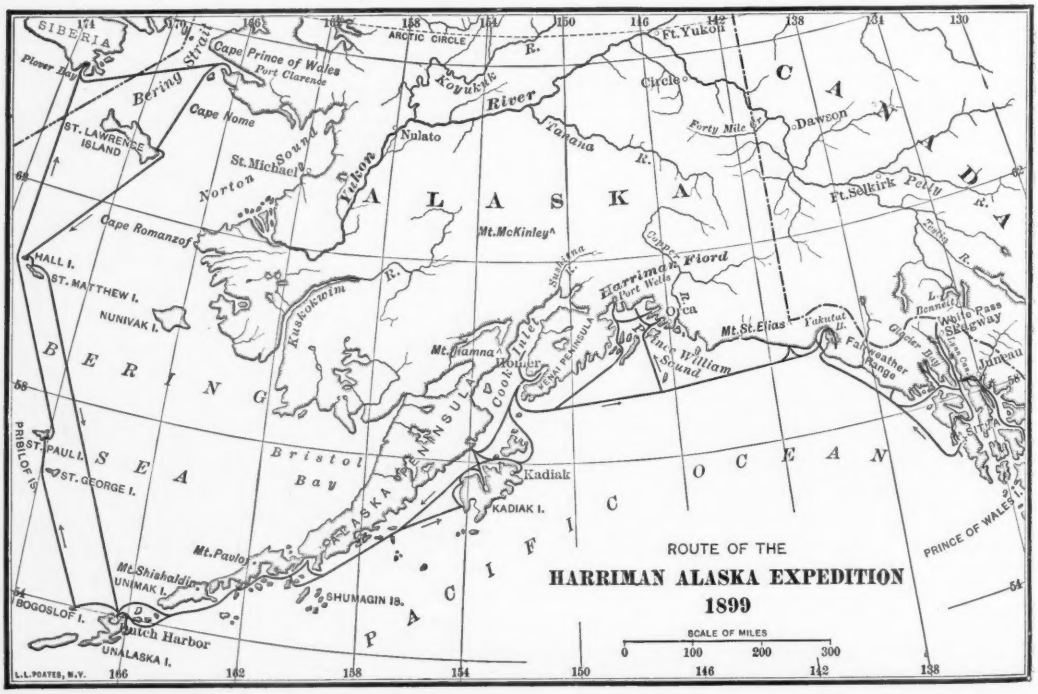
Painted by L. A. Fuertes.

HEADS OF PUFFINS.

The results of the admirable management and untiring effort have already been alluded to. Here is a summary of the discoveries in different branches of work, as far as can be ascertained before the collections are completely worked up and classified by the many specialists to whom this difficult task has been assigned: —

NEW FOXES, SHREWS, AND OTHER MAMMALS

Twenty-six kinds of mammals new to science were found in the collection of 215



Painted by Charles R. Knight.

THE KADIAK FOX.

One of the new mammals discovered by the Harriman Expedition.

specimens secured. Among these were two foxes, one larger than any North American species previously known, and marked by an enormous tail, — much constricted where it joins the body, then growing extremely large and bushy, and from this point tapering to the tip — which was named the Kadiak Island Fox (*Vulpes harrimani*); five species and sub-species of shrews, and five new forms of hares, besides lemmings, porcupines, spermophiles, and so on.

RARE SPECIES OF BIRDS

No new birds were found, but specimens of two very rare kinds, McKay's snowflake (*Passerina hyperborea*) and Kittlitz's murrelet, were collected; while the five hundred other specimens brought back extended the known range of many species, and in one instance supplemented facts previously gathered, so as to confirm the existence of an undescribed and unnamed sub-species.

CRABS, SEA-WORMS, AND OTHER MARINE INVERTEBRATES

The work in marine invertebrates was particularly successful. A small crab (*Pinnixa*), found living in the burrows of a sea-worm, and a shrimp were added to the known list of ten-footed crustaceæ. In a single group of sea-worms, known as Nemerteans, twenty-five of the thirty species collected were entirely new, and only two had been previously found in Alaska. One of these strange worms is fully six feet long and of a deep vermilion color; another of equal size is blood-red with a white head; and the zoölogists declare that these creatures do not appear in such varied and striking forms anywhere else in the world. An estimate from

From a photograph.

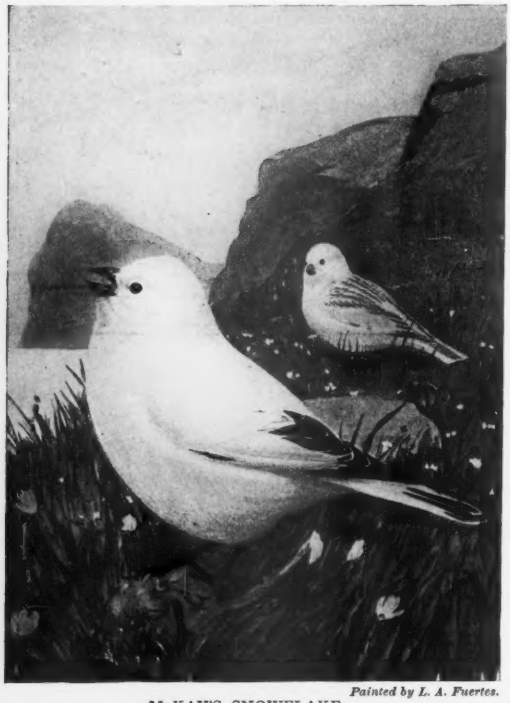
GULLS IN FLIGHT AT THE BREEDING GROUNDS.

From a photograph.

A "HAREM" OF FUR SEALS.

The solitary bull in the background has just been defeated by his rival in front after a fierce fight for possession of the herd.

the specialist in charge of this particular branch of research places the total number of new marine invertebrates as rather above than below *one hundred;* and one discovery of great importance was a new genus and species of *Enteropneusta* (*Harrimania maculosa*). This group of animals has long been the subject of the most animated discussion among zoölogists, many investigators holding that they are the starting-point of the backboned animals — a sort of link between the vertebrates and invertebrates; and in the opinion of Dr. Ritter this new species seems to settle the question in the affirmative.



Painted by L. A. Fuertes.

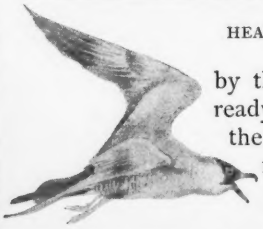
McKAY'S SNOWFLAKE.

TWO HUNDRED INSECTS FORMERLY UNKNOWN

A dozen famous specialists are now at work studying and classifying the five thousand pinned insects (besides spiders and larval forms preserved in alcohol) brought back

Painted by L. A. Fuertes.

HEAD OF JAEGER.



by the expedition; and already it is known that of the nine hundred species represented two hundred have never before been described by the entomologists, and many more were supposed to exist only in Northern Europe.

NEW FORMS OF PLANT LIFE

In the botanical work, though one of the largest collections of all was made, it is still almost impossible even to guess at the results, since the reports of the foreign specialists engaged in working up particular groups have not yet come in. But probably ten new flowering plants are included, — among them a unique willow apparently growing nowhere except on the shores of Yakutat Bay; several fungi hitherto undescribed are included, and a number of new seaweeds (*Algæ*) are also already in evidence.

GEOLOGICAL WORK

Collections of the Sitka black slates, the crystalline rocks at Plover Bay, and of the rocks of that strange freak of nature, Bogoslof Volcano, as well as of fossils of various kinds, are now being studied microscopically. In addition, many observations of glaciers were taken in the endeavor to throw light upon their apparently erratic waxing and waning which, though for centuries the subject of all sorts of speculations and wild guesses on the part of European geologists, still baffles scientific research. The Alaska glaciers are on such a grand scale compared with even the most famous European ones that they offer a peculiarly satisfactory field in which to test the various theories advanced.

From a photograph.

THE YAKUTAT WILLOW (*Salix amplifolia*).
A new species discovered by the Expedition.

CORRECTING THE COAST-LINE AND MAPPING GLACIERS

When the expedition left Yakutat Bay and went to Prince William Sound many changes were found necessary in the maps, for, particularly on the north and west sides, the Sound had never been accurately charted. Here, too, occurred the great find of the trip, geographically speaking, — a noble fiord, the existence of which had never before been suspected because a glacier almost bars its entrance: fifteen miles in length, this "Harriman Fiord" contained five new discharging glaciers. (Only twenty-two glaciers of the class known as "living" glaciers were observed during the whole voyage, though many hundreds of "dead" ones, — so called

Painted by Charles R. Knight.

KADIAK BEAR.
This is the largest species of bear known, often attaining the size of a full-grown ox. A medium-sized specimen was shot by Mr. Harriman on this trip.

A PANORAMIC VIEW OF
One of the glaciers discovered in Prince William

because their fronts do not reach the sea and they do not therefore discharge icebergs, — scores of them formerly unknown, were examined and charted.)

Mr. John Burroughs describes this experience in his narrative of the trip as follows: —

"Later in the afternoon we ascended an arm of Port Wells more to the westward and entered upon a voyage of discovery. We steamed up to a glacier of prodigious size that reared its front across the head of the inlet and barred further progress in that direction — the Barry Glacier. According to the U. S. Coast Survey map we were at the end of navigation in these waters; but Mr. Harriman suggested to the Captain that he take the ship a little nearer the glacier, when a way seemed open to the left.

"The Captain naturally hesitated to enter it: it was unmapped and unsounded water.

"'Go ahead, Captain,' said Mr. Harriman; 'I will take the risk.'

"We went on under a good head of steam down this new inlet where no ship had ever before passed. Glaciers hung on the steep mountain sides all about us. One of these was self-named the Serpentine by reason of its winding course down from its hidden sources in the mountains — a great white serpent with its jaws set with glittering fangs at the sea. Another was self-named the Stairway, as it came down in regular terraces or benches. As we neared the front of this glacier the mountains to the left again parted and opened up another new arm of the sea, with more glaciers tumbling in mute sublimity from the heights, or rearing colossal palisades across our front. Another ten-mile course brought us to the head of this inlet, which was indeed the end of navigation in this direction. Subsequently this inlet was fitly named the Harriman Fiord, and the glacier at the head of it, Harriman Glacier."

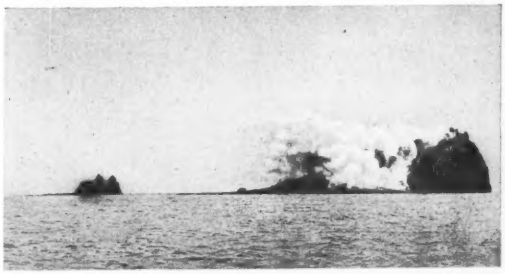
A REMARKABLE PUBLICATION

These notable discoveries are to be preserved in a form quite commensurate with

From photographs.

COLUMBIA GLACIER.
Sound, and named by the Harriman Expedition.

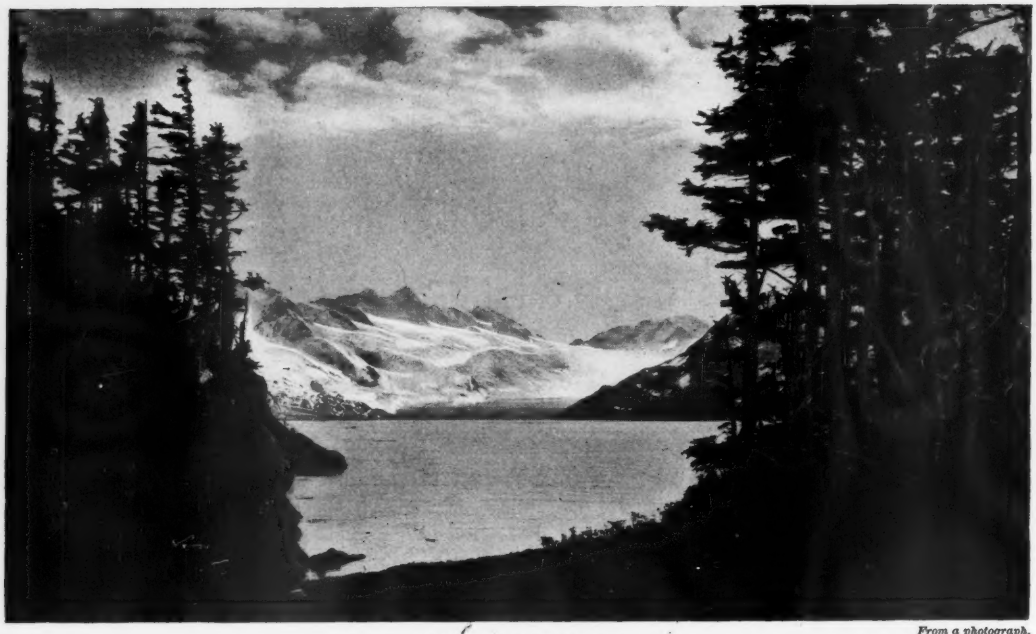
their importance. Mr. Harriman proposes to embody them in several volumes. One of these will contain a long narrative of the journey by John Burroughs, besides a dozen articles of general interest by other members of the expedition; and three or four will be devoted to the technical reports of fifty or sixty experts in the various special branches of research. Mr. Fuertes, upon whom the mantle of Audubon seems now to rest, has pictured in color all the most noteworthy birds of the region; Mr. Gifford and Mr. Dellenbaugh have painted and exhibited scores of views of the glaciers, mountains, sunsets, land-and-sea-scapes, and natives that passed like a panorama before their eyes; and Mr. Walpole was sent to Alaska specially, after the expedition returned, to paint some of the wonderful orchids and other flowers. A great many of these paintings have been fac-similed in color by the most expert lithographers, and in addition some hundreds from the thousands of photographs taken have been selected for reproduction by photogravure and pen drawings. The popular volume alone will contain nearly a hundred of these photogravures, more than thirty colored plates, and probably two hun-



From a photograph.

BOGOSLOF VOLCANO.

The new cone, which was suddenly cast up out of the sea a few years ago, is shown on the right, still smoking. The older extinct one appears in the distance.



From a photograph.

HARRIMAN GLACIER.

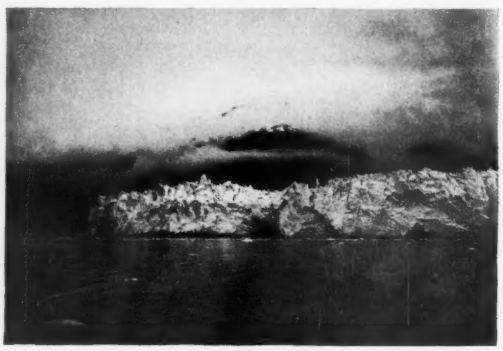
At the head of Harriman Fiord — both fiord and glacier first made known by the Harriman Expedition.

dred line drawings; so that, presented on an all-rag paper and handsomely bound, it will form perhaps the most elaborate work of travel and exploration ever issued in this country.

A SUGGESTION TO MILLIONAIRES

Hardly less important than the actual fruit of the expedition is its value as a sign-post to our multi-millionaires. A little while ago a Western man of vast wealth was heard to complain to a friend that he did not know how to spend his money satisfactorily. We venture to believe that this is an embarrassment commoner than people often realize. Only the distorted imagination of the professional agitator and the sensational press really conceives our wealthy men as a class apart, entirely engrossed in oppressing the widow and the orphan in order to swell their bloated money-bags. With the great increase in the number of people possessing large fortunes, there has come even a greater growth of the sense of responsibility. When all his own wants are supplied the average human being can hardly help thinking of others; and, in addition to the natural and universal desire to do something that will preserve his name to posterity, the man of fortune is more than likely to have an ideal (carefully hidden from the world, no doubt) of doing good with his money, and of using his power to advance civilization.

Mr. Harriman's Alaska Expedition and its magnificent results seem to indicate one true solution of this problem, and it is to be hoped that the great field lying open before them will prove attractive to our American rich men who are tired of the game of mere money-getting.

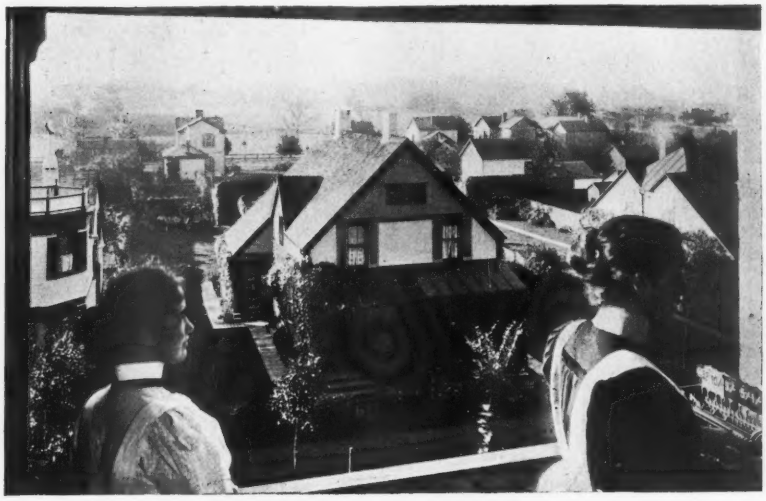


From a photograph.

BARRY GLACIER,

which almost bars the entrance to Harriman Fiord.

LOOKING OUT OF THE WINDOW OF A MODEL FACTORY.



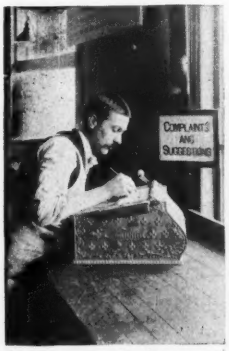
THE BETTERMENT OF WORKING LIFE

THE SOCIAL ENGINEER — IMPROVEMENT OF FACTORY CONDITIONS — WHAT A NUMBER OF MANUFACTURERS HAVE DONE FOR THEIR WORK-PEOPLE — "PHILANTHROPY" SUPERSEDED BY PROFITABLE MUTUAL INTEREST

BY

R. E. PHILLIPS

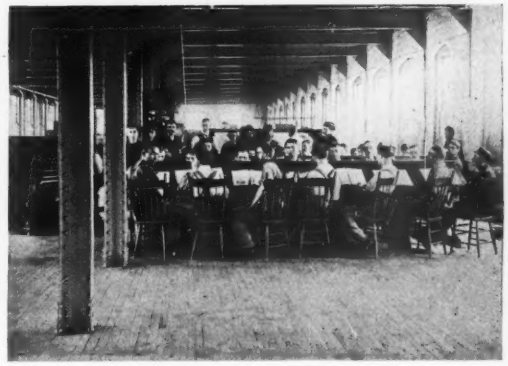
[The author of this article made a visit to the factories that he describes to get the facts at first hand, and what he has written was written from his own observations.]



One way of registering complaints and suggestions.

THE most important subject in our social welfare is the well-being of working life. There is no other question in social economy comparable in significance to this. With the increasing organization of industry is the lot of the individual worker getting worse or is it getting better? The following first-hand observations of experiments at coöperation in interest, but not directly in profits, made in Cleveland, Pittsburg, and Dayton, Ohio, seem to me to show a tendency toward better working conditions and to answer the question whether the betterment of working life pays.

A committee of prominent business men of Cleveland, Ohio, appointed last October by the Chamber of Commerce, made a report on plans for industrial betterment that had been adopted in other cities, including recommendations to employers of working-people in Cleveland. The result was the appointment of a Chairman of an Industrial Committee, whose duties are to act as adviser on social betterment. To the city of Cleveland, then,



THE NOON HOUR.

In this factory the workmen have reading desks and chairs, with a piano and many such conveniences.

LUNCH-TIME—THE OLD WAY.

belongs the honor of having the first Social Engineer.

About thirty factories and stores in that city are now carrying out various plans for the betterment of their working-people. The efforts of most of them to improve working conditions have been made under unfavorable conditions of buildings or of work. The results are therefore of exceptional interest and importance.

The Cleveland Hardware Company, for example, wished to equip a lunch-room in the factory, in order to keep their men from the near-by saloons at lunch-time, and because they believed that a demonstration of a practical interest in their welfare would pay. But every foot of space in the factory was in necessary use. They had to make room, as it were, by force. The first step was to overhaul and clean the whole factory. The result was that kitchen space was found.

HEATING COFFEE—THE OLD WAY.

The kitchen thus provided for was a room 9 feet square, at the end of a corridor between two buildings. But not half the problem was yet solved. There must be a lunch-room for 350 men. Folding tables were put in the aisles between the machines, a table to every 6 men. A monitor is assigned to every table. At eleven o'clock he takes to the kitchen a square tin box arranged with 12 small compartments, where individual orders are placed. Thus a rush at the serving-window is avoided. The men who do not care to form sets go to the window after the monitors have been served and order what they wish. In this way, the entire force of 350 is served within ten minutes after the noon whistle.

The next step was to add to the bill of fare, which at first contained only coffee and sandwiches. New things were added — Hamburg steak, 2 cents; pork and beans with a slice of bread, 3 cents; half a dozen crackers with cheese, 2 cents; pie, 3 cents; mashed potatoes, 1 cent; cooked meats with bread, 6 cents; puddings, 3 cents; oyster soup (on Fridays), 5 cents; and so on. The company's purpose was to do away with all suspicion of charity and to give the men wholesome food at the lowest price. On some of the items the company makes enough profit to cover waste and expenses. The pies, for instance, cost 12 cents apiece. They are cut into 5 portions and sold at 3 cents a portion. On coffee, sold at 1 cent a pint, there is a loss. On the whole the company neither loses nor makes. The restaurant pays for itself, but makes no profit.

Additions to the bill of fare required a bigger kitchen. The first kitchen became a serving-room, and a bigger kitchen was made in the corridor between the rolling-mill and the foundry, 7 × 50 feet instead of 9×9 feet. The added equipment cost nearly $200.

Then, cleanliness and material improvement naturally led to a consideration of other needs. A branch of the Cleveland Library was established at

THE DINING-ROOM WHICH HAS SUPERSEDED THE OLD "HAND-TO-MOUTH" METHODS
(see facing page).

the factory. Then an idea that brought excellent results was coined out. It was an idea that smacked somewhat of the old attitude of charity, but it was a most interesting one. Prominent men and women all over the world were asked to donate to a private factory library one book each, with the signature of the donor on the fly-leaf. The men thus got an autograph library of 300 volumes, selected by the world's prominent citizens. Some of the letters sent by the donors are interesting. For instance, Mr. Cornelius N. Bliss wrote: —

"I am sending to you to-day by express, two volumes of 'Contemporary American Biography.' As almost every man whose name appears in these volumes has worked his way up from small or very moderate beginnings to positions and prosperous conditions, it occurs to me that I can make no more acceptable gift to the workers of your company, who are engaged in similar efforts, which are certainly attainable under our beneficent form of government by every American Citizen."

Captain Robley D. ("Fighting Bob") Evans sent a copy of "With Sampson in the War," with a characteristic "fighting letter": —

"I send you to-day a book for your Library, and hope your men may enjoy the account of our feeble efforts to square the *Maine* account."

A FACTORY LUNCH CARD.

A FORMER VIEW ALONG A RAILROAD LEADING INTO DAYTON, OHIO.

The interest taken by the men in these books has repaid the company many times for the trouble of procuring them. It stimulated the reading of the books from the public library. From a circulation of 84 in October, last year, the first month the books were drawn from the library, the number now read in the factory averages about 400 — or more than a book per month for each man.

Work and conditions suggested further improvements. In the rolling-mill, for instance, prostrations frequently occurred. A change was made in the time-schedule. For two shifts of 12 hours were substituted three of 8 hours each. The result was, to the men, better health, fewer prostrations, and the same wages; to the company, greater output without added expense. By means of air-shafts over the furnaces all prostrations were finally avoided.

THE SAME REST-ROOM UNDER MORE FAVORABLE CONDITIONS.

In cases of accident or sickness the men formerly looked to the company for assistance, and it was given. But the plan proved unsatisfactory. It caused dissatisfaction. Moreover, some of the men pretended illness and shirked their work. The company proposed

SAME VIEW SHOWING IMPROVEMENTS DUE TO PRIZES OFFERED BY A DAYTON FACTORY

a Benefit Society. The idea was promptly adopted, and such a society was organized. Of this, the workers have entire charge. The company contributed $100 to start the fund and donated the services of a clerk to keep

A MAKESHIFT REST-ROOM FOR FACTORY WOMEN.

the society's books. They employ no one who is unwilling to join the society.

Thus the company is relieved of all responsibility for sickness or disability; it is not accused of unfairness or injustice in distributing benefits; and the men in accepting the society's benefits for which they themselves

pay, do not consider themselves objects of charity.

Here, then, are details showing how plans for betterment were evolved in one factory under unfavorable conditions. What are the results? Does it pay? The results that I have explained prove that it does pay. Naturally, different men regard benefits in different ways. One man, finding that the company sold a 12 cent pie for 15 cents, accused the managers of conducting the restaurant as a money-making scheme. Again, last June, 30 machinists went out on a strike, though none desired to do so. Some, in fact, at first refused to obey the Union's order. This attitude of its workers the company attributes largely to improved working conditions.

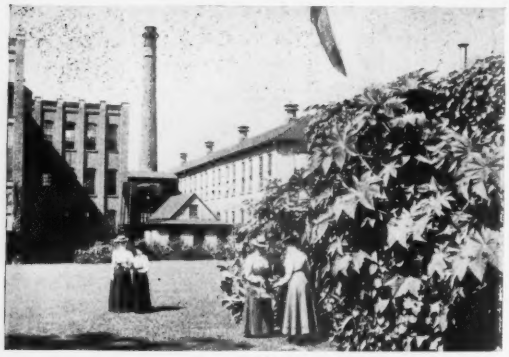
HOW WORK USED TO BE DONE IN ONE FACTORY.

Problems similar to those here indicated confront other employers. In the case of the Sherwin-Williams Paint Company, in Cleveland, for example, lack of room, keen competition, and the necessity of considering all expense of improvement a part of the cost of production, are among the chief difficulties. Here, actual factory conditions offered the first suggestion. Employees brought their lunches and ate them where they could. Many sat on window-ledges; some on the work-room floors. Coffee was heated on the heaters and radiators. Then lunch-rooms were provided — one for the factory hands and one for the girls, foremen, and office force. Here the employees of all departments brought their lunches. The next question was, why not provide lunches for them? First, hot coffee? This meant cups, a stove, coffee-urns. These, with the coffee, were provided. Having provided part of the lunch, why not provide the rest? Hot soup was added; then bread and butter; then meats and fruits. A good luncheon was thus arranged. One of the items, either soup or stew, together with tea and coffee, is served free of charge. The rest is served at cost. The usual expense for lunch to employees is 6 or 8 cents; by ordering everything on the bill the expense cannot exceed 17 cents.

HOW IT IS DONE NOW IN THE SAME FACTORY.

Managers and employers often lunch with employees, thus meeting them on common ground. Their very willingness to do so counts for much in good will, sympathy, and in the consequent interest of employees in the work of the company, and goes far toward making the plans for betterment a success.

The company believes that health pays. Rest-rooms for all women employees have been fitted up and comfortably furnished with cots and chairs. Bath-rooms, equipped with tubs and shower-baths, are located in various parts of the factory. When



A FACTORY WHICH TREATS ITS EMPLOYEES AS SOMETHING MORE THAN MACHINES.

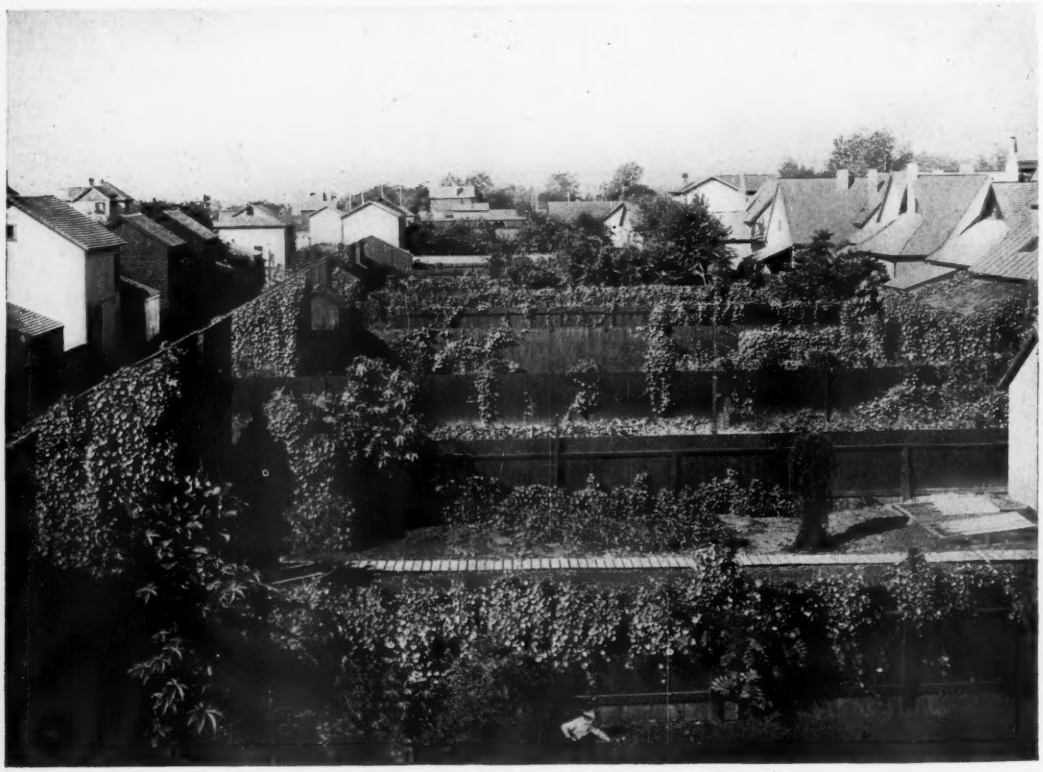
shower-baths were first considered, it was decided to put them in for the men only. The women heard of this. They demanded shower-baths for themselves, and their demand was granted.

The Cleveland Telephone Company met with the opposite experience. Their girls refused to use the baths provided. They considered it a reflection on their personal cleanliness.

In the dry-color department of the paint-factory, the shower-baths are compulsory. Moreover, the company supervises the clothes that the men wear, because in their work there is great danger from lead-poisoning. A clean suit of clothes is given to every man in the department every day. The men start out with two suits apiece. The first day the clean one is worn next the skin; the next day this suit is worn outside and another clean one is put on underneath. In this manner, the men are protected.

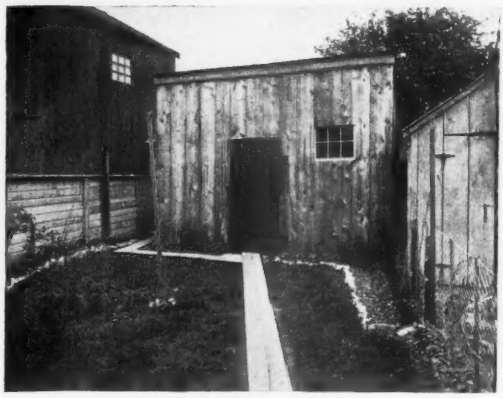
The plan shows interesting results. The foreman of this department says that during the four months since its adoption not a single case of sickness nor a symptom of poisoning has occurred. Formerly, at least 20 per cent were constantly ill.

Again, before clean clothes and compulsory baths, the average time of service in that department was a month and a half. Since



INFLUENCING THE HOMES OF THE WORKERS.

The results of prizes offered by factory owners to their employees for the most attractive back yards.



AN UNSIGHTLY CORNER.

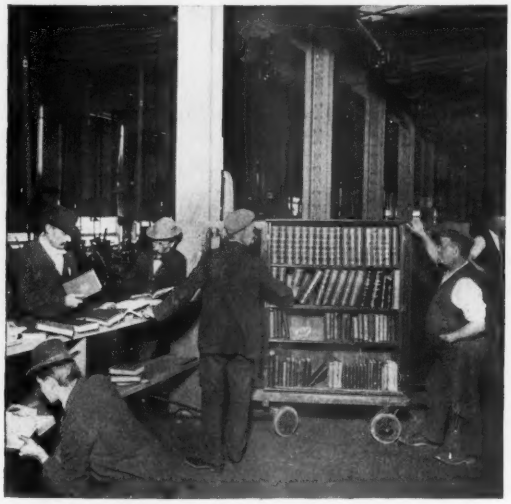
then, no one, on account of sickness, has left the department. These results mean financial advantage, personal betterment, and working harmony.

Once a week in the factory of the Cleveland Window Glass Company, a discussion takes place upon some topic of business interest. Written questions are handed in advance to the employees. The answers enable the company to judge of the efficiency of its working force. They indicate also the possibility of educating men from the ranks to positions as foremen and salesmen, thus obviating the necessity of relying upon outside assistance. Here is one example: Two years ago a young man was taken into the employ of the company at a salary of $12 per month. Soon the company needed a salesman. Largely through information obtained in these discussions he was enabled in a short time to fill the position of salesman at a salary of $25 per week instead of $12 a month.

Occasionally the employees found difficulty in knowing where to go for information upon topics proposed for discussion. This was especially the case with the boys. The company suggested attendance on night schools. Last year 20 boys attended them. So, again, the results are practical and of mutual advantage to company and worker.

Rest-rooms for women have been noticed; but rest-rooms for men are a new departure. One of the first examples is offered at the barns of the Big Consolidated Street Railway Company in Cleveland. Formerly, conductors and motormen waited outside the barns until their runs began. Now a room inside has been fitted up and comfortably furnished. A pool table is one of the furnishings.

HOW THE CORNER WAS TRANSFORMED BY A BOY INTO A PRIZE-WINNING EXHIBIT.

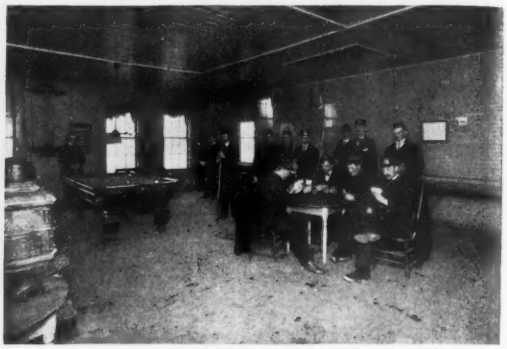


A "TRAVELLING" LIBRARY—FOR THE FREE USE OF ALL THE EMPLOYEES.

On the top floor of one of the buildings of the Cleveland Twist Drill Company a similar room, about 100 feet long by 50 wide, has been fitted up as a combined smoking, reading, and lunch room. Substantial food is here served at cost. After lunch the men light their pipes and lounge around the room, reading or resting. In the centre of the room, a reading-table, with chairs on each side to accommodate 25 or more men, is usually crowded during the noon hour. Others take their books and periodicals to various parts of the room. About 210 out of 230 employees use this room and pay for their luncheon.

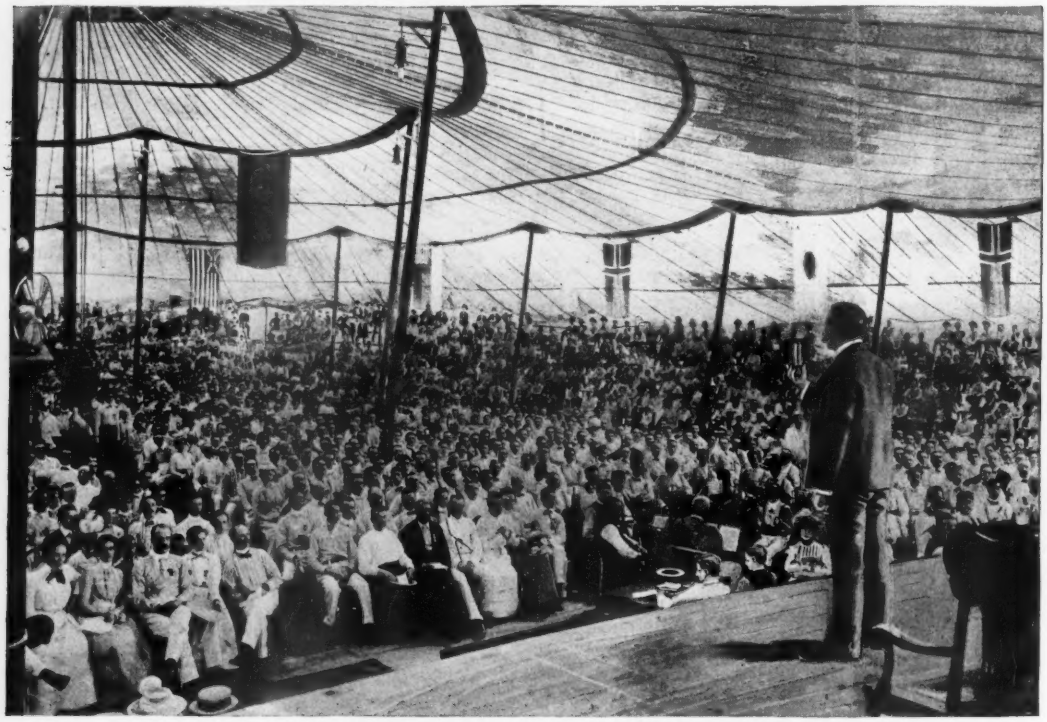
The others bring their own luncheons. All, of course, are invited to make use of the facilities offered, whether they eat there or not.

One feature of special interest in this factory is the system of paying for suggestions tending toward improvements in factory methods and management.



HOW ONE STREET-CAR LINE HAS LOOKED OUT FOR ITS CONDUCTORS AND MOTORMEN.

One of the first suggestions was adopted. The drills made by the company are straightened before they are sent out. A drill is laid on a block of metal whose upper surface is smooth and highly polished. By looking toward a strong light and rolling the drill back and forth, the inaccuracies, if any exist, are discovered. This work requires great accuracy and close application, and it is exceedingly trying to the eyes. Formerly the work was done in a large room with a number of large windows. An employee suggested partitioning the room, painting the walls green, and hanging green shades at the windows. Fifty dollars was paid for



A PRACTICAL DEMONSTRATION TO EMPLOYEES DURING A FACTORY CONVENTION.

this suggestion. In return the company obtained the use of half the original room for other purposes, and an increase of 15 per cent in the work done in the green room. As this increased output has already amounted to several thousand dollars, with a better quality of work, the company lost nothing.

In the tempering room, employees work in front of furnaces. Their schedule calls for 10 hours' work a day. Shower-baths were put in, and 30 minutes each day was allowed the men, on the company's time, for baths. The result was that more and better work was done in 9½ hours than had been done in 10 hours.

Better work in this department resulted in another saving to the firm. In tempering, the drills are heated and then plunged into water. By careful handling in this process, they may be made fairly straight. With occasional baths during the day, the men exercised greater care. As a result, less time and labor were needed in the straightening department.

When asked about the baths, the foreman of the tempering-room said that every year previously he had been obliged to stop work; this year he was able to continue without the usual rest. He added that he would rather go without light at home than without baths at the factory.

Air-pipes have lately been placed in the annealing-room. The result is not only better working conditions for the men, but a fourth greater output for the company. That the company receives its share of the benefit from its efforts to improve conditions of work is shown by the details just given; that the men appreciate these efforts in their behalf is shown by the following letter to the company, dated August 21, 1900, and signed by all the employees: —

"We, the undersigned, in the employ of the Cleveland Twist Drill Company, grateful for the many comforts and conveniences so thoroughly and conveniently furnished by this firm, take this method of expressing our thanks for them, together with a sincere wish for the continued prosperity of the company."

In the factory of H. J. Heinz, of Pittsburg, betterment began by curtaining off one end of a working-room for use as a lunch-room. It accommodated 30. The present lunch-room accommodates about 300. At first a lunch was served to factory hands for 11 cents. For this same menu the managers of departments paid 19 cents. They were satisfied; the factory hands were not. They were finally charged 4 cents per week for tea, coffee, or milk every day. They bring their own lunches. This is the plan now in operation. It gives satisfaction to all.

On last Christmas Day, the factory hands, office employees — all, in fact, connected in any way with the company — gave an entertainment. The room in which it was held was crowded to overflowing. The owner had long considered the idea of building an auditorium for just such occasions. This experience confirmed him in his purpose. The plans of a large factory building then in course of construction were changed to include a room about the size of an ordinary theatre. This room is thoroughly equipped with stage-fittings and scenery. It seats about 500. At the right of the audience room is the managers' dining-room; at the left, a second dining-room for women. These are so arranged that, should occasion demand, they can be opened into the main room and increase the total seating accommodations. It is the purpose of the company's president to offer the use of the auditorium to residents of the neighborhood — non-employees — for public gatherings.

The extension of influence here indicated leads to a consideration of the plans for betterment in one factory where this feature has been especially studied and developed.

In 1895 the conditions that prevailed in the factory of the National Cash Register Company at Dayton, Ohio, were such as prevail to-day in most factories throughout the country. Good wages were paid; in return, the company expected good work. In the contrary event, vacancies occurred. Wages, only, constituted the basis of relations between employer and workers. What the results in this factory show is, that betterment of conditions under which wages are earned is a practical business consideration.

THE ORIGIN OF A FACTORY BETTERMENT

In 1895 cash registers to the value of $30,000 were shipped by this company in one order to England. The whole lot was

returned on account of defective workmanship. This led the company to a consideration of a change in factory methods.

The first step was to give the most complete information possible to all employees regarding the details of the business. This was accomplished by frequent meetings, by factory publications, and announcements. Next, it was decided to educate the employees — each in his special line of work. Meetings were held for this purpose, at which topics of business interest were discussed; primers, compiled by practical mechanics, were distributed in the machinery department; prospective salesmen were required to meet under a practical instructor for a six weeks' training before they were allowed to go on the road.

At first, the motives of the company were misunderstood and misconstrued; but by means of lectures illustrated by stereopticon views, where the advantages to be derived from intelligent coöperation were shown; by repeated frank and open statements of its motives in requesting the coöperation of its workers; and, finally, by showing its interest in the condition and welfare of its people in many practical ways, the company succeeded little by little in proving that its motives were meant for the highest good both to company and employees; and they changed their attitude from indifference to loyal and enthusiastic support.

PAYMENT FOR SUGGESTIONS

One of the plans that contributed to this result was to pay for suggestions. A series of cash prizes, ranging from $5 to $50, and amounting to $1230 each year, is offered for the best suggestions made by factory employees, except heads of departments and assistants. An average of 4000 suggestions are received each year. About one-fourth of these are available. Here are some results to company and workers: For six suggestions, cited as fair examples, $165 was paid. From the resulting improvements the company saves $855 dollars a year!

Many suggestions are received whose money value cannot readily be computed. In one case, for instance, a suggestion was adopted which led to the improvement of the device for printing advertisements on the backs of paper checks issued by a certain style of register. While this is valuable, its *exact* value cannot be determined.

Of suggestions offered by heads of departments and others who receive no prizes, two have recently been adopted which result in a saving to the company of about $8000 a year. These instances show cash returns; far above this, however, the company places the resulting tendency of the plan toward increased efficiency, interest, and coöperation by the whole body of employees.

Another plan adopted was the introduction of piece-work. Here is the result in one department, best shown by the following table: —

RESULTS OF TIME-WORK AND OF PIECE-WORK

Year	Average Daily Output represented by	No. of Employees	Average Daily Earnings	Labor Cost to Company
Before Piece-work was Introduced				
1897	77	72	$1.10	$1.09
After Piece-work was Introduced				
1898	86	68	$1.19	$1.00
1899	127	88	1.18	.91
1900	135	95	1.18	.91

The result, as will be seen, is a constant decrease in productive cost and a corresponding increase in wages.

In every department similar results were obtained. The main point is that in order to obtain the desired coöperation, plans were adopted which made it advantageous to employees and at the same time offered a paying investment to the company. This idea — mutual advantage, without charity — is the foundation of practical and successful betterment.

Having thus aroused an interest in their people, the next step was to indicate an interest in them by improving conditions under which work was done. The first effort in this direction was to make the factory surroundings and working-rooms as attractive as possible. Flowers, shrubs, and vines were planted wherever possible, near the factory. A lawn of several acres took the place of weeds and stone. The appearance of the whole factory, from one of unattractive dinginess, was changed to most attractive brightness and cheerfulness. The next steps were to clean the factory buildings, to enlarge the windows, to paint the exterior a bright and

attractive color, and to provide a force of janitors, uniformed in white, to care for the factory and the grounds.

HEALTH AND SCHEDULE OF WORK

In addition to these changes, especial attention was paid to the health of employees. Medicines were supplied free of charge to every one who needed them. Bathrooms, both for men and for women, were put in all the buildings. These rooms, while thoroughly clean and comfortable, are neither elaborate nor expensive. They are of course free to all employees, each of whom is allowed one bath per week, occupying 20 minutes of the company's time.

These changes and innovations were of course gradual. The next important step was to reduce the working schedule of men from 10 to 9½ hours, and of women from 10 to 8 hours, a day. The pay remained as before on the basis of 10 hours a day. This recognition of the needs and comforts of employees resulted in increased effort on their part. More work was accomplished after the reduction than before. In one department, for instance, under the 10 hours schedule 89 employees produced an average daily output of 52 parts of a certain kind of machine; working 8 hours per day, the number of women employed in that department was decreased from 89 to 77, and the average daily output on the same work increased from 52 to 59. The average daily earnings also increased during this period from 89 cents to $1.06 for each employee. The women who stopped work in this department were put to work in other parts of the factory. This shows that nothing was lost under the more favorable conditions in one department. Similar results were attained throughout the factory.

The company employs about 250 women. After reducing the schedule of working hours, one of the first improvements was that of fitting up a women's lunch-room. It required a year to accomplish it. At the end of that time a large room on the fourth floor of one of the factory buildings, formerly used as an attic and storeroom, was changed by the addition of windows, chairs, and tables into a plain but satisfactory lunch-room. Here lunch is served at a cost of 1 cent per day to each girl. They take turns in preparing and serving it. The company has organized a cooking-class under the direction of an experienced teacher. The class now has about 200 members. It meets twice a week for lessons. The price charged for each meal — 1 cent — is about one-fourth of its average cost to the company. Since the addition of the lunch-room the increased average output in all the women's departments has amounted to *six* cents per day.

Adjoining the lunch-room is a rest-room, fitted with cots and easy-chairs for the convenience and comfort of the women. There they have placed a piano, purchased at their own expense. Once a week a "travelling" library is wheeled into the room, with books belonging to the company or sent from the Dayton City Library, of which the factory is a branch. Elevators have been provided to take the girls to and from their work; tall-backed chairs with foot-rests have replaced the former benches and stools in their work-rooms; and with two recesses each day (included under shorter hours) and the opportunities for general improvement, the advantages of these women among factory women of similar position are unique. The results, in added interest in their work, and in the enthusiasm with which they carry out the company's request for intelligent coöperation, are remarkable. Moreover, constant social meetings under proper conditions have had an important moral and intellectual effect upon them. On this point, the forewoman of one of the departments said: "I know every one of my girls personally, and can vouch, without exception, for their high standard of morality." Such, it was added, was not the case under the former system. Now, too, the girls, almost without exception, are broader intellectually than before. Now they read books of recognized merit; before, they read trash, if they read anything. The illustrated lectures in the factory have given them an idea of what is going on in other countries, and in different parts of our own country. Formerly, they knew and cared nothing for these things. They now have a new attitude toward their work, a new view of life, higher ambitions, broader ideals, character — these illustrated in their homes and in their everyday work in the factory.

Formerly, out of 52 girls in one department, 5 or 6 were absent on account of

sickness; but now, from an average of 115 employes, 1 is the average of absence.

For the men employed in the factory less has been done than for the women, because they have responded less readily to advances made by the company. They are beginning to realize, however, that the baths, the library advantages (they have the same advantages as the women, including the "travelling" library), well-lighted and well-ventilated working-rooms, are not intended to take the place of good wages. The company has provided two large lecture-rooms — one at the factory and one in the city of Dayton — where well-known speakers are invited to address the employees, both men and women. These lectures are always attended by large numbers of the workingmen, who invariably show their interest by giving the speakers a hearty welcome. Under the new working conditions there was practically no sickness among the men in the factory. In view of this fact and to insure itself further against the possibility of sickness, the company decided to employ no one without a physical examination. The first of these examinations, conducted by physicians employed by the company, was held in June of last year.

One of the workingmen now employed in the machinery department was formerly employed in the same department in another factory. His statement was, that the difference between the conditions in the two factories was "the difference between the place I hope to go and the place I hope never to go."

In another case one of the men employed on the grounds was seen pulling weeds. He was working with more than usual vigor, and said, in explanation, that he always liked to do his work as well as he could because John liked to see things looking fine. It was discovered that "John" is the president of the company. In nearly all cases the men who mentioned the company in any way spoke of it as "our" company. In Dayton they tell the story that for this very reason a certain well-known financier decided not to enter into business competition with it.

COMMUNITY BETTERMENT

Having secured in the ways mentioned the sympathy and active coöperation of its people, the company took the important step of extending its influence to the community. The suburb in which the factory is situated was formerly known as "Slidertown." The people who lived there were for the most part poor, living in tumble down huts and shanties. They cared little for making their homes attractive. This air of shiftlessness suggested the name by which it was known. Through the initiative of the company's officers, the name was changed to "South Park." An effort was made to interest the people living there in its improvement. With this end in view a series of prizes, amounting to $250 a year, was offered for the most attractive front and back yards, the best effects in window-boxes, and the most effective results in vine-planting. To show the people how to go about such improvements, lectures, illustrated by stereopticon views, were given by the company. In these practical methods of gardening were indicated. Examples were also shown of successful and unsuccessful results.

In continuation of these efforts, two acres of ground were provided by the company for the purpose of interesting the boys of the neighborhood in gardening. This plot was divided into 43 small garden-beds, with one boy in charge of each. Fifty dollars in prizes was offered to the boys obtaining the best results. Lessons in practical gardening were given by the stereopticon. The result was that Slidertown began to justify its name of South Park. The entire aspect of the place changed. Flowers, vines, shrubs, were to be seen everywhere. One of the streets facing the factory was pronounced to be the most beautiful street in the world, considering the size of the lots and the houses.

These results were obtained, not by the expenditure of a large amount of money, but by a little attention and effort on the part of the men, women, and children of the neighborhood.

THE "HOUSE OF USEFULNESS"

A cottage near the factory was bought by the company and was fitted up as a "House of Usefulness." This cottage is the centre of the social and intellectual life of the community. It is in charge of a deaconess paid by the company. Her apartments in this cot-

tage offer a practical example of furnishing a house attractively and at comparatively small expense. The use of the factory library located here, also of the public library books which the company receives, is given free to any one desiring the privilege. Here, also, the first effort in America was made to carry on Kindergarten work in direct connection with a factory. Classes are provided for all the children of the neighborhood, whose parents, whether factory employees or not, desire the little ones to take advantage of the opportunities offered. These classes are conducted by experienced teachers. The entire expense is borne by the company.

In connection with this work, a Penny Bank has been established, the object being to encourage the boys who sell the products of their garden-plots, and the children of the neighborhood in general, to save their pennies.

A Sunday school, now one of the most successful and best organized in the country, was also started here. It has about 700 members. The space available will accommodate only a small part of this number. For the rest, chairs are provided by the company in the large rooms of the factory. In the summer the classes meet out of doors, under the trees. The children are instructed not only in Bible history and in the topics usually taught in the Sunday school, but in those questions, especially, which are applicable to their everyday home life. Every effort is made to make the afternoons spent here attractive to the children. The stereopticon is considered a sure means of entertainment and instruction. Lessons are given on health, in nature, and in out-door life, in travel, in home-gardening, in flower-culture, and in numerous interesting and practical subjects. These talks are often attended by the parents and friends of the children. The influence of the work therefore is a broad one. The interest taken by the children and the obvious results for good from an undertaking of the kind more than repay any expense or effort which may be necessary to its maintenance.

The Boys' Club, the Girls' Club, the Lyceum Literary Club, the Young People's Society, and the Boys' Brigade — organizations composed of young people of the neighborhood and factory — have their headquarters in the "House of Usefulness." Organizations like the Woman's Guild, for the women of South Park, the Kindergarten, the Mothers' Union, and the Out-door Art Committee also come under its influence and direction. The continued improvement and growth of the whole South Park neighborhood, the consequent increase in property values, including that of land owned by the company, the interest taken by the inhabitants in these improvements, and the results of this interest in the lives and homes of the people, are due to the efforts of the company in establishing a "House of Usefulness."

The company gets its return from this extension of influence in many ways. It has a better class of employees to draw from in the immediate neighborhood; these employees, preferring to work here rather than elsewhere, — wages being the same or better, — add to the stability and permanence of the company's business; the value of land owned by the company is enhanced by attractive surroundings; and so on. From every point of view the plan here outlined is a paying business investment.

Now for the question of the desirability of undertaking plans for betterment: what is the use of considering the workers' well-being so long as good work may be obtained by paying good wages? Most employers have all they can do to consider themselves and the best ways of making their business pay; some have always considered the men in their employ as human beings rather than as machines; many have worked with their men in the ranks. To-day conditions have changed. The question of betterment is one that is met in some form by all employers.

If the results above indicated show that instead of bringing added expense, plans for betterment actually assist in making business pay, and indicate in some measure the manner in which such plans may be successfully carried out, the object here, apart from all questions of humanity and "philanthropy," will have been abundantly accomplished.

ARE YOUNG MEN'S CHANCES LESS?

HAS CONSOLIDATION RESTRICTED OPPORTUNITIES?—WHAT MERCHANTS, BANKERS, LAWYERS, AND COLLEGE PRESIDENTS SAY—IMPORTANT AND PROFITABLE POSITIONS FOR WHICH COMPETENT MEN CANNOT BE FOUND

BY

HENRY HARRISON LEWIS

ARE young men's chances of success more hopeful or less to-day, than they were a generation ago? Are the concentration of business and the growth of great corporations a help or a menace to the youth who faces the world with no other heritage than his brains and his hands? Especially in the large cities is this a vital question. It is estimated that 150 young men from the country and the smaller cities come into New York to seek their fortunes every day in the year. They all hope to win success. But they are often told that the increase of population, the steadily advancing requirements for entering a business career or the professions, and the lessening opportunities for conducting independent enterprises, make the outlook continually darker.

The observation of men of experience is worth more than theoretical study to help toward a clear understanding of such a subject. I have preferred, therefore, directly to ask the opinions of a number of men who are themselves in positions that enable them to open careers for large numbers of young men, and who have been obliged to make a practical study of the present conditions of success. Their opinions are here presented for what they are worth.

Perhaps no better evidence could be obtained than the careers of some of these men themselves. Many of them are still young, young enough to have won success under the present industrial conditions.

One such is Mr. Charles M. Schwab of Pittsburg. Twenty years ago he received as wages a dollar a day at the Carnegie Works. Now he is the president of the company and receives a salary twice as large, perhaps, as the President of the United States, and he owns $15,000,000 worth of the company's stock. About 20,000 men are employed under him, and there are forty or more of his subordinates who receive salaries from $15,000 to $50,000 a year. Mr. Schwab began life with no money nor influence. He has risen by his business ability, and because of improvements in the manufacture of steel which he effected by a careful study of metallurgy, carried on in a laboratory which he fitted up in his own house and in which he worked outside of business hours.

There are, as everybody knows, many careers of a similar kind. Mr. Carnegie's own career is one. There is a man in New York who, twenty years ago, was shovelling gravel on a construction train on the Long Island Railroad. Now he is at the head of the consolidated street traction service of the city. He is Mr. Herbert H. Vreeland, who, yet a young man, receives a princely salary and does a great public service.

A list of men could be made of wearisome length who, by the time they have reached middle life, have won important administrative positions, or large fortunes, or both.

HIGH POSITIONS WAITING FOR MEN

Nearly all men who have themselves succeeded maintain that modern business organization has made more opportunities and better ones than before existed.

Mr. Charles R. Flint of New York says:—

"I have to-day places for several men to whom I would pay $10,000 a year. But they must be men of all-round business ability."

The president of one of the largest trusts in the country says:—

"I am anxious at the present time to fill five positions, three of which would yield $15,000 a year, and the other two $10,000 each. If the right

men could be found, they could step into these places and these salaries to-morrow."

One of the largest, perhaps the largest, retail merchant in New York said that if he could find a young man who would now train himself, ultimately to succeed the managing partner of his house, he would pay him $50,000 a year.

Bankers, merchants, manufacturers, and railway presidents declare that they are looking for young men capable of directing great business operations.

"But the trusts and the vast industrial combinations," it is said, "which are securing control of almost every product are taking away these opportunities by lessening the number of lucrative positions. They are consolidating opportunities. One successful or lucky man now receives a big salary, whereas formerly half a dozen men had this salary divided among them."

But most of the managers of large enterprises deny this also. For instance, Mr. Flint says: —

COMBINATIONS MULTIPLY OPPORTUNITIES

"Highly developed organizations, resulting in an enormous volume of business, have increased the necessity for intelligence; and, since the supply of brains is not equal to the demand, the price of brains has risen. The turning over of individual enterprises to combinations has caused the retirement of old men to the advisory boards, and has made way for young men for the active posts. In our factories, our mines, our railways, in every field of organized industry, there are ten times as many men receiving $3000 a year or more as there were thirty years ago. The population of the country certainly has not increased tenfold in that period; and this increase in the number of good salaries is *prima facie* evidence that there has been an increase in the number of opportunities for men of ability.

"But it is said that they are dependent. Dependence of one individual upon another is, however, the condition of civilization. Complete independence is found only in the wigwam of the Indian. Was Captain Clark less the commander, or Chief Engineer Milligan less the engineer, because they were dependent upon each other in making the historic run and the fine fight of the *Oregon* in the Spanish-American War? Each gave to the other his opportunity.

"While economic evolution is centralizing production in large corporations, decentralization of ownership goes on simultaneously through the rapid distribution of shares.

"Under the old conditions of private ownership the control of many of our industrial enterprises would have been inherited by one individual or family. Now the control is subject to the rule that prevails in the administration of our state — the rule of the majority. It is seldom that the heirs of industrial giants have the capacity to succeed to the management of gigantic enterprises. The majority of stockholders — for, generally speaking, the numerical majority is also the majority in interest — elect as officers aspiring young men who, through years of application to a particular industry, have proved their ability to assume the responsibilities of leadership.

"It is not merely in the highest positions that this rule holds good. The rule in every great corporate business is to divide responsibilities among men fitted by their training to direct special departments. The head of a single department in a great modern concern has more authority and more responsibility than the owner of a private business had twenty-five years ago. I know that great industrial concerns are frequently embarrassed because they cannot find men who can command big salaries, and that the directors of our financial institutions are put to it to find trustworthy men capable of handling great undertakings. This state of affairs does not indicate that the young man of to-day has no chance, does it?"

A similar opinion is held by Mr. James B. Dill, a prominent corporation lawyer in New York: —

"The corporate tendency of to-day has created an active demand for, and put a premium upon, college-trained minds, both in business and in professional pursuits. The profession of the law, to-day, as every other profession, calls not only for men of strong individuality, but for men capable of intelligent, strong team-work. The man who is most in demand and receives the greatest reward, is the man of strong individuality who is capable of the most accurate, energetic, and intelligent combination-work. Individualism is not dead. On the contrary, individualism is still more strongly called for in the development of combinations."

General Francis V. Greene, who has found time, before reaching fifty, to win success as a soldier, a writer, an engineer, and a business man, adds his testimony: —

"There are three sorts of men, and for two of these sorts the tendency to industrial consolidation is a distinct advantage, while for the third there is no salvation in any economic system that has yet

been devised. These three classes are the thoroughly competent who go to the top and command annual salaries that would once have been fortunes; the half competent who find profitable employment in subordinate positions and are saved from going into business for themselves and failing, as they would have fallen under the old system; and the incompetent who sit on the park benches as they would have done before.

"In the four years ending June 30th, 1900, the exports of the United States were $4,800,000,000. In this same period the imports were $2,900,000,000, leaving a balance in our favor of almost $2,000,000,000. This country is so big, and its trade is becoming so vast that big concerns are needed to handle it. No collection of small manufacturers, without a common purpose except to fight one another, could hope to handle such a business. It requires consolidation, organization, and heads capable of handling armies of men. This is the opportunity of the young man with brains. So far as I know anything about large concerns, they all are looking for good men to take high executive positions. The man who has the advantage of an education in a technical school, and possesses business ability, will be rushed right along to the top. The great combinations can well afford to pay large salaries to men who can manage their expensive machinery and who are trained to high special labor. Every increase in the extent of commercial organization and in the trade of the country widens the range of opportunities. There never has been a time in the history of the world when there have been so many chances for young men as now."

CHANCES IN BANKS AND RAILROADS

In banking, consolidation has affected the chances of young men less directly. But Mr. William H. Kimball, president of the Seventh National Bank of New York, says: —

"The large banking concerns are the concerns that make the most money and present the best opportunities for young men. The chances for young men in banking to-day are as good as ever, and the facilities for reaching the top are better. The same capacity, integrity, and ambition are required, and these qualities, with persistence, are bound to win success sooner or later. The outcry that the trusts are taking away the opportunities of young men affords a good excuse for those who do not wish to work."

Another banker, Mr. W. A. Nash, of the New York Corn Exchange Bank, says: —

"Our country is filling up rapidly, but new avenues of occupation are continually opened and opportunities for advancement are far more frequent to-day than when I was a boy. Bankers are on the alert for trustworthy and capable young men. Influence and personal interest may be important in securing a position, but afterwards every man must stand on his own merits."

CONDITIONS IN THE PROFESSIONS

Now to turn to the professions. Dr. George F. Shrady, of New York, gives an interesting review of the outlook for young physicians: —

"The young man entering upon the practice of medicine to-day has just as good an opportunity for success as the man of thirty years ago had, perhaps better," he says.

"There has been an equalization of advantages. A young man of to-day has a better foundation for his medical education than he used to have, thanks to the high schools, the technical schools, and the hospitals. In the early days he went from the plough to read in the doctor's office, thence to an ill-equipped medical college, and thence to practice. He had to learn his profession by practice and hard knocks. A young practitioner's earnings were, I think, comparatively more thirty years ago than they are to-day; living expenses were not so high, and neither were the office and professional expenses so large. The great development of the country and of the advance in the science of medicine have made new fields for medical men. The specialists receive fewer but larger fees.

"To-day the standard required is much higher than it has ever before been, and the rewards of the successful are proportionately greater. I may compare the physician of to-day with the well-trained and groomed thoroughbred. The track is 'faster' now than it ever was, the thoroughbreds are trained to a finer point, and those who start in the race are more numerous. It is a hard race, and the track is crowded with particularly good runners. The best naturally win. But there is the law of compensation to be considered in medicine as in other callings. If there are more physicians, there are also more patients, and they are richer and better able to pay big fees. There are few fortunes to be made in medicine, to be sure, but there is always a good living for competent men. As in other things, the unequipped go to the bottom. Medicine used to be a limited monarchy with a few uncrowned kings at the head. Now it is a great republic in which every good man is the equal of his fellow. There is only one thing that will bring the young man of to-day success in medicine, and that is a love for his profession and the hardest kind of hard work. The man who

splits his own wood is warmed twice. There is a great field for specialists in the big cities that did not exist thirty years ago. But the country doctor, too, is a well-educated man and vastly superior to his predecessor. He is self-reliant, and a good general practitioner, as a rule. One of the greatest factors in the success of the young doctor is his affability of manner. The day of the frank and brutal practitioner is past. The opportunity for success in the medical profession is greater than it ever was, for the brilliant man; and it is as great for the mediocre man."

TWO COLLEGE PRESIDENTS' OPINIONS

President Schurman, of Cornell University, has a hopeful view: —

"Judging from our experience at Cornell University, there never has been a time when there were so many demands for able and well-trained young men as at present," says President Schurman. "Perhaps the majority of these applications come from concerns supported by large combinations of capital. As the success of this sort of business depends upon the ability with which its affairs are managed, young men of character and brains are indispensable, and wonderfully high salaries await those who can earn them. I think that the opportunities for young men under the present system of large combinations of capital are greater than ever before in the history of the world.

"It is a mistake, however, to suppose that small concerns and competitive undertakings have been eliminated by those great combinations. There are now, and always will be, small factories, small stores, and other similar enterprises. Service in some of these may give a young man more varied responsibility and consequently more varied training. But so far as success is concerned, if one measures success by the financial compensation received, I think young men will have better opportunities in the large institutions than in the small."

The president of a university who prefers that his name should not be made known, lest he should be thought to criticise his associates, said, in answer to my inquiry: —

"I'll tell you frankly, I think about no other subject so much, for two reasons: I can't find the men I want as teachers, and I cannot give the definite advice that I should like to be able to give to many a young man who talks with me about his career.

"Now then, this university wants young men trained to enter its faculty after they have had experience, who can teach, who are men of force, first-class, forthright men, — men who *could* do anything, but who prefer this noble labor to any other. But most of the young men who choose academic careers are like the older ones — men of high ideals, men of studious habits, men who love knowledge and are eager in its quest, men with whom it is a joy to live if sometimes a trial to work; but they lack force. The chance is here. There are more opportunities than there are strong men.

"I have concluded, and the conclusion saddens me, that most youth of force prefer commercial careers. The stronger boys go into business or into the active professions. But lawyers and men of affairs tell me that they, too, are looking for the same sort of men that I wish to see in training for teaching. I have concluded, therefore, that there are many more chances for strong men than there are strong men for these chances.

"But all this does not touch the man of mediocre ability and energy — the seventy-five or eighty or ninety or ninety-five out of every hundred. But these commonplace men, if they are industrious and have good habits, do manage to get along well — just as well, I think, as they ever did. I can't believe that a healthful and industrious young fellow has any greater difficulty than his father had.

"But he differs from his father in this — and I think that this is probably the cause of the constant complaints we hear: his father was not so ambitious. More young men nowadays hope for a brilliant success, perhaps a spectacular success, than dared hope for it a generation ago.

"But, after all, there are more successful men in every calling to-day than ever before — whether a larger proportion, I do not know. I tell the youth that seek my advice one thing that I know is sound doctrine: 'Don't think too much about yourself and about how fast you think you ought to rise. Work! A morbid man wouldn't know a Great Opportunity if he met it in the street every morning."

THE CHANCE FOR DOING GOOD

Most of these opinions turn, not unnaturally, perhaps, about the question of mere material success — money-making and the measure of success given by money. The higher view — the view of success as an all-round normal development of character and mind — implies of course a moderate degree of financial achievement and of personal independence. These acquired, the chance of a good influence in the world, of a widespread effect of sound character and good deeds, is greater than ever before. There can hardly be doubt of this conclusion.

MR. ROOT AS SECRETARY OF WAR

A "FIGHTING LAWYER" WHO TAKES HIS DUTIES SERIOUSLY — A REMOVER OF SCANDALS IN THE DEPARTMENT — THE REORGANIZATION OF THE ARMY

WHEN Mr. Olney was made Secretary of State, a fellow-member of the Cabinet said: "The two appointments hitherto made to that office by President Cleveland seemed ideal in their way; in one case he chose a trained publicist and statesman, in the other he took a distinguished judge from the bench. The political propriety of both appointments was beyond question. Nevertheless, it cannot be said that either appointee achieved a great success. This time he has some especially hard work for a Secretary of State to do, and he is going to try a fighting lawyer."

It may have been in such a mood that President McKinley, when obliged to choose a new Secretary of War in mid-term, turned his eyes toward Mr. Elihu Root. In his appointment of Mr. Alger he had followed the almost unbroken precedent of a quarter century, in treating the office as if it were chiefly ornamental, and easily filled by any man who had amassed a fortune and knew something of politics. A rule that works well enough in fair weather is often a poor dependence in a storm, and the Cuban War and its Philippine sequel presented problems too intricate for Mr. Alger's ability. It is to the President's credit that, on the discovery of his error, he acknowledged it by making a change so complete as to leave no doubt of the sincerity of his conversion.

A greater contrast in appearance, methods, and temperament than that between the present Secretary of War and his immediate predecessor it would be hard to conceive. Mr. Alger had the merchant, the personal manager, the private man of business, plainly stamped on him. His dignity of manner was an artificial barrier which he had raised between himself and a world full of competitors in trade, of inferiors in authority, of persons from whom he was to buy and to whom he was to sell on the terms most advantageous to himself. If he unbent, it was to be affable, or "democratic." When his patience was too sorely tried, he lost control of voice and gesture, and an explosion followed.

Mr. Root, while less aggressive than Mr. Olney, is quite a "fighting lawyer." It would not be fair to say that he lacks dignity of manner, but he has a natural reserve, more subtle than what is commonly known as dignity. There is nothing stiff about his greeting, and yet it does not put the caller wholly at ease. He has no gift for small talk. He does not know what it is to "pass the time of day," to make conversation for the sake of being pleasant, — at least in office hours. It is enough to do this when social intercourse compels it. When any one calls upon him to transact business, business must be transacted; and when this is ended, the interview is expected to end.

MR. ROOT'S LEGAL CAREER

In his law practice, which has been full of trying situations, his unvarying coolness has stood him in good stead. In public life, criticism, even of the most galling sort, fails to ruffle his spirits. He treats it, indeed, as unworthy of any response unless backed by an authority which he is officially bound to respect. Thus his nomination for a seat on the Common Pleas bench of New York in 1879 was the signal for a bitter assault by his political opponents, based on the fact that he had been one of the legal defenders of Tweed in the notorious Tammany Ring prosecutions, and that he had let his zeal for his client carry him so far as to call forth a rebuke from the court. On his acceptance of a Cabinet portfolio the same accusation was revived, coupled with the charge that he was regularly retained as counsel for the Sugar Trust. It would have been a simple thing for him to respond that in both these instances, and in others like

them which were matters of public record, he had appeared only in a professional capacity, and had done, as was his duty, all he could to secure for his clients their full rights under the law; and that, in such cases as the aqueduct litigation and the Yale Lock infringement suit, he had saved his fellow taxpayers millions of dollars. But to every attempt of the newspapers to draw him out he answered not a word. On the other hand, when the Senate voted to look into the charge that as Secretary of War he had shown favoritism to certain miners at Cape Nome by granting them exclusive permits to excavate the gold-bearing bed of the sea, his answer was forthcoming as soon as the resolution of inquiry reached his table. It showed that, since the statutes for the protection of commerce forbade excavations in navigable waters except by his authority, he had issued permits to all who had applied for them, covering places where, according to the Chief of Engineers of the army, the work of the miners could not do any harm. The prompt refutation disarmed his assailants, and nothing more was heard of the matter.

ELEVATION BY APPOINTMENTS

Mr. Root lacks what the politicians call "warmth" and "approachableness," and his advancement in public life has been not by popular election, but by appointment. Twice he has been appointed to offices of large responsibility: President Arthur made him United States District Attorney for New York, and President McKinley, before naming him for a place in the Cabinet, had him in mind for Ambassador to Great Britain. President Harrison would have been glad to promote him. He could have had his choice of honors in the gift of Governor Roosevelt, who has leaned upon his judgment for years. Appointive offices have been his to command. But his single nomination for a judgeship led to defeat at the polls. Every time, for the last fifteen years, that the State of New York has been casting about for a governor or the city for a mayor, Mr. Root's name has been high on the list of Republicans "prominently mentioned," but he was never nominated.

No man in public life has changed more than Secretary Root between youth and middle life. Reared in a small college town in Central New York, earning as a teacher the money to complete his education in the law, he entered his profession in the great city with no factitious equipment. He had no influential connections to help him; and, of course, no fortune to rest upon till a clientage should find him out. He was in sound health, of wiry build, and full of courage. No task was formidable enough to discourage him; no adversary faced him at the bar with whom he feared to wrestle. He became famous for his ready eloquence and skill at repartee in the court-room. He carried the same spirit into his political speech-making, and was continuously in demand in the campaigns. But as his practice changed, he long neglected public speaking. But his speech at Canton, Ohio, just before the election, was the best speech made on either side during the campaign.

Not less in his political ideals has Mr. Root undergone a change. He came to New York in the days when Chester A. Arthur, as the Prince Hal of the Republican dynasty, held petty court at the Custom House end of the town, but was frowned upon by the solid citizens who did not dabble in politics. The young lawyer was one of a small group of ambitious men whose mettle Mr. Arthur was quick to discover, and whom he attached to himself, possibly by letting them get a glimpse of the true heart underneath his roysterer's mantle. When, suddenly summoned to the responsibilities of the Presidency, he shook off the associations of his earlier career, and held faster than ever to the handful of companions whom he believed worthy to share his elevation, Mr. Root was one of these. From the atmosphere of thick-and-thin partisanship in which he had passed his youth, he emerged by degrees as a reformer — a party man still, but one who realizes that parties should serve the state, not rule it. Thus the Mr. Root of to-day may be a less frequent campaigner than the Mr. Root of twenty years ago, but he is a riper man.

As Secretary of War, he stands for the idea of unification, as opposed to the incessant clash of diverse bureau policies. All his work is made tributary to a definite line of action, instead of being merely a succession of temporary expedients. Early and late at his desk, barring his door against intrusion except at certain hours set apart for visits, he

gives the impression of being the busiest member of the Cabinet. Most of his work has been broadly laid for greater results in the future. He has a well-defined plan for the reorganization of the army; but such an undertaking requires the coöperation of Congress, and Congress is a slow body while under the influence, as it is at present, of a group of military officers whose importance would be reduced by the proposed changes. The total fruit of his efforts at last winter's session was an increase of one hundred in the number of cadets at West Point, and legislation touching a dozen matters of minor consequence but ignoring those which he had most at heart. But that Congress was willing to do anything at all was a surprise to most observers, and may fairly be accepted as an earnest of better things to come.

THE REORGANIZATION OF THE ARMY

One feature of Mr. Root's reorganization plan which has attracted wide attention is the establishment of an army war college corresponding to the naval war college. Its purpose will be to prevent the recurrence of a situation which threatened our land forces with disaster in 1898 through lack of preparation for war. Tributary to this will be a system of staff details, such that every officer in the line who shows adaptability for staff duty may receive four years of actual training in the mobilization of an army and its subsistence in the field, and then return to his place in the line. Still a third feature of his plan is a modification of the seniority rule, so as to let selection play a part in promotion. He would have the first three officers of each grade below field rank made eligible, so that either one of the three might be selected, and the other two put, as it were, upon the waiting list till the officer chosen should die or retire or be further promoted. It is true that, if the fortunate man happened to be the junior member of the trio, his competitors might never reach the higher rank; but the arrangement would offer a compensating advantage in stimulating young officers to distinguish themselves, instead of dropping into a rut and trusting for their advancement to the flight of years rather than to their own exertions.

Mr. Root's activities in Washington have not been confined to those assigned by law and custom to his office. It is an open secret that he assumed, for a part of last summer, the chief burdens of the Department of State in addition to his own. It was his pen which, during Secretary Hay's illness, framed some of the most important diplomatic notes touching the crisis in China. It was characteristic of the man, that he was willing to do this double duty while he was suffering acutely from a disorder which no one was permitted to suspect till the strain was past and he could find time to call in a surgeon.

A STRONG HEAD OF A DEPARTMENT

No Secretary of War has kept his Department more free from scandals, petty as well as big. The first problem he had to face was, how to check the demoralization which had begun to spread through the military establishment, growing out of the strained relations between the Adjutant-General and the Major-General Commanding the Army. Mr. Alger had not proved disciplinarian enough to compose the differences between the two officers. Possibly he had become too frankly a partisan of one side, after his patience had been exhausted by the other. Mr. Root's first assertion of authority made it evident to both parties that they had to deal with a man who would go to the very bottom of their quarrel if they forced it upon his unwilling notice, and who, on ascertaining its merits, would mete out justice in his own fashion. The effect of the discovery was magical. The bickerings and backbitings which for two years had furnished material for the sensational press, suddenly ceased. The surface of affairs at the War Department became as smooth as a summer sea, and so it remains to this day.

HIS EXCELLENCY WU TING-FANG

HIS UNIQUE POSITION AND HIS WORK IN PRESERVING GOOD FEELING—HIS OPINION OF AMERICAN TRADE AND MISSIONARIES—THE FUTURE OF CHINA

MR. WU, the Chinese Minister, is the most interesting figure in the diplomatic corps at Washington. The events of the past six months have made him the most conspicuous foreigner in the United States; and in the midst of overwhelming difficulties he has shown the most delicate tact and courtesy, and retained the good will of all Americans.

The career of this remarkable man is crowded with incidents that show high qualities. He was born near Canton, and in that city acquired his early education. Going then to Hong Kong, where his father was a merchant, he added English to his other studies. In the important business transactions between Chinese and English merchants, he observed that his countrymen were at a disadvantage because their lawyers did not understand the English language and English law. His patriotism and his ambition were stirred. He determined to go to England and to study English law. The anti-foreign prejudice was then so strong that his friends almost violently opposed his plan. He persisted, and went to England in 1874, and in due course by hard work became a barrister, the first man of his race to attain to that distinction.

On his way home, in 1877, Mr. Wu visited the United States for the first time. When he returned to Hong Kong, he established himself in a successful practice, his knowledge of English law and his command of the English language making his services immensely valuable to his people. Until 1882 he continued to practise law, in the meantime declining an appointment as Consul-General at San Francisco.

The skill and aptitude of Mr. Wu in diplomatic negotiations with Japan won the respect of the statesmen with whom he had been associated in two important missions, and of his government, and he was appointed to his present post as Envoy Extraordinary and Minister Plenipotentiary to the United States, Spain, Mexico, and Peru in May, 1897.

He knew something of the customs of the American people, and when he descended the gang-plank of the steamer which brought him here he readily submitted to the interviewer. He proved himself more than a match for the wiliest reporter.

No sooner was he fairly established at the capital than Washington awoke to the fact that the Chinese Minister was a new kind of Oriental diplomat. He immediately began a somewhat ostentatious campaign of self-introduction. His advances were received with enthusiasm. His suavity and politeness were charming. Here was a Chinese Minister who joked in our own idiom and who entertained superbly. He even introduced Madame Wu to society; and she, on her part, immediately undertook the study of English, in which she has since acquired some proficiency. The teas given at the legation are more popular than those of any other diplomat.

Minister Wu is a busy man, but he is more easily seen than any department or bureau chief in Washington, and he makes generous sacrifices of time to all sorts of people. It is a part of his plan to be amiable. He understands the value of popularity in America, and in the trying days of last summer he had his reward. Had he been previously unapproachable, he would inevitably have fallen under a cloud of suspicion, if not of hostility. As it was, he had hosts of friends who believed in him; and by maintaining his wonted frankness and friendliness, he rendered his country inestimable service.

And his good nature is not assumed. It is a part of the man. He likes to oblige people. Moreover he has a keen sense of humor. He sees the bright side of things. But he can be serious at the proper time; and his dignity and

poise were admirably displayed when the nation to which he was accredited seemed likely at any moment to hand him his passports.

When the first reports of Boxer uprisings came there was a rush of newspaper correspondents to the Chinese legation. Minister Wu welcomed them. He knew them all. He talked freely, patiently, skilfully, giving such information as he could, and never failing to plead for sober consideration from the American people.

Then, when it became evident that the Chinese government itself was a party to the mischief, he exerted himself to prevent hostile pre-judgment. His representations to the State Department were made with great skill. He protested against the sending of troops; but when the troops were sent, he accepted the situation gracefully. When the entire country was excited about the legations, he refused to believe that the foreigners in Pekin had been massacred, and declared his belief of their ultimate safety. Then, when no one else could secure news from Pekin, he placed himself at the service of the State Department for the transmission, privately, of a message to Mr. Conger. The message was sent and an answer was received. That was a red-letter day for Mr. Wu. When, later, he himself was accused of duplicity, he felt keenly the false accusation. But he kept cool and made only pacific responses. "These are days of sensational journalism," he said; "I hope the American people will be slow to form their opinions from ill-considered newspaper reports." At no time did he demean himself with greater dignity than under this torrent of hostile doubt. In the subsequent negotiations he has proved his large understanding of international difficulties.

"And what have you to say of the American part in the international performance?" I asked him.

"I am entirely satisfied," was his reply; "I think the Administration has done all that it could be expected to do; especially," he added, with a smile, "in a democratic country, on the eve of an election."

"America," he continued, "is now a power in Asia. It will not be necessary to disturb the conditions that have existed, and when the United States is firmly established in the Philippines, it will be even more desirable for the protection of American interests to maintain the integrity of China. America has much that China needs. We need American merchandise. We need railroads." He is proud of the fact that he was the promoter of the first railroad in China.

"And the missionaries?"

"I would not say a word against the missionaries," he replied. "They have gone, you know, into the interior, far from treaty ports, where the people are unaccustomed to foreigners, and some of them have attacked the cherished traditions and beliefs of the people without sufficient regard for their feelings, perhaps. How would you like that, now?" he asked, for it is a favorite thrust of Minister Wu to say, "Put yourself in his place."

"But the medical missionaries," he went on, "have done much good. They have gone among ignorant people and cured their ills; some of them have translated useful books into the Chinese language. I give them the highest credit; and if I might say a word to those who send out missionaries, I would say, 'Send medical missionaries. They will help us to build up China.'"

Minister Wu believes in Western civilization. He contributes articles to the American magazines; he is the first Chinese Minister to address an American audience, and the University of Pennsylvania has made him a Doctor of Laws; he rides a bicycle about the streets of Washington, and he has an automobile for Madame Wu.

He is an indefatigable worker. Although he speaks and writes English fluently, he continues his study of the language, and he knows French. He lately concluded the negotiation of a treaty of amity with Mexico. Last year he visited Spain and presented to the Spanish court his credentials as Minister to that country. As yet he has been unable to leave Washington in order to go on a like mission to Peru, the other country to which he is accredited.

Minister Wu is now about fifty years old; in his small mustache there is a tinge of gray. But the impression he gives is of a man of great force and vigor; and his keen brown eyes are alive with intelligence. He was born of a family in good circumstances, but his comfortable fortune is mainly of his own making.

THE NAVY IN THE PHILIPPINES

ITS SERVICE SINCE ADMIRAL DEWEY'S VICTORY — THE PATROL OF THE ARCHIPELAGO — THE INSURRECTION BROKEN

BY

REAR-ADMIRAL J. C. WATSON

I CONSIDER that there is no longer any insurrectionary government opposing us in the Philippine Islands. The backbone of the uprising is broken. This does not mean that all resistance will cease at once or in a few months. In my belief there will be hostilities for perhaps another year — not open engagements, but guerilla fighting until the extermination of brigandage.

Our government has a sufficient naval and military force in the Philippines for a working possession of the islands. There are about 65,000 troops and somewhat more than fifty vessels manned by about 7500 men, making a total force of 72,500.

For the complete subjugation of the islands and the establishment of local government, it will be necessary to retain this force for fully a year. But I do not believe that it will be actively engaged all the time. Much of it will be assigned for garrison duty, especially for the protection of the friendly natives who would otherwise be the victims of the villany of the outlaws. These friendly natives must have protection, and the sooner the insurgents realize that they are under the protection of our government, the sooner will they adapt themselves to the new order.

There must be a strong display of armed force. The Filipinos must be intimidated. They must be treated with just severity, but not with cruelty. Our extreme leniency has amazed them and cost us many valuable lives. But severe lessons have been taught the Filipinos, and more must follow.

I anticipate beneficent results from the work of the new Philippine Commission headed by Judge Taft, not only because of the high character of the Commission, which merits and has the confidence of the American people, but also because it is backed up by so efficient a military and naval force.

The progress of the settlement of all troubles will depend largely upon the success of the Commission in its dealing with the friars and in its conduct in reference to the church property. There is a popular desire among the natives that this vast church property, so long the bone of contention, should revert to the people. If the title to much of it can be shown to have been obtained by fraud or to be in any way invalid, a great deal of the present bitterness will be removed.

There is no longer any Filipino government. There seems to be no head to it, and demoralization has followed the scattering of the insurgent forces. It was faith in the integrity of Aguinaldo and what he stood for that kept alive the spirit of revolt. There is, however, now a strong impression that he is either dead or incapacitated; and I myself am strongly inclined to this opinion in spite of the recent alleged proclamations from him. My own opinion of the Filipino is that he is at present capable only of local self-government — to a very limited extent.

The navy's part at Manila and elsewhere in the Philippine Archipelago continues to be important; and I believe that it will be necessary to keep a large fleet on the station, not only for the moral effect, but because of the long coast-line that must be patrolled.

The most notable naval achievement during my command was the surrender of Zamboanga to Commander Very of the *Castine*. It resulted in the pacification not only of that place, but of much of the adjacent territory. I made a tour of inspection during my stay in the Philippines, which included a cruise to the Sulu Islands. Because of this trip I am able to correct a wrong impression that has been made in the United States by newspaper publications, — I mean the impression that

the Americans were inciting the Moros or Mussulmans to murder the Christian natives. The truth of the matter is, Commander Very made constant and successful efforts to keep these two classes of natives from killing each other, and the Moros showed much humanity toward the native Christians.

The chief work of the navy continues as mapped out by Admiral Dewey and as followed by Captain A. S. Barker, who temporarily succeeded him as commander-in-chief in the interval between Admiral Dewey's departure from Manila and my arrival there on June 20, 1899. It consists of maintaining a patrol of the entire coast, a distance of about six thousand miles, and preventing the landing of arms and war supplies by the insurgents. Almost as sharp a watch is kept by the ships at Manila to-day as was kept immediately after the battle of Manila Bay. Strange as it may seem, the hot-bed of insurrection is yet in Manila and in the Cavité province. The most serious obstacle that lies in the path of complete settlement is the question of the treatment of the Mohammedan population of the Sulu group.

REAR-ADMIRAL WATSON

REAR-ADMIRAL JOHN CRITTENDEN WATSON, U.S.N., is a sailor of the old school. His career goes back to the days of the wooden frigates, and he has witnessed practically the whole evolution of modern naval warfare. He was born in Kentucky, August 24, 1842, and was appointed to the Naval Academy in 1856. His first service was as midshipman on the *Susquehanna*. He was flag lieutenant on the flagship *Hartford* of the West Gulf Squadron from 1862 to 1864, and he saw hard service. In 1863 he was appointed flag lieutenant to Admiral Farragut, and participated in the battle of Mobile Bay. In 1866 he was commissioned a lieutenant commander. A year later he was once more assigned to duty under Admiral Farragut, this time on the *Franklin*.

Admiral Watson's return journey from the Philippines provoked as cordial greetings as Admiral Dewey received. The *Baltimore*, his flagship, left Manila April 19.

Upon reaching the Mediterranean, the demonstrations in honor of the American navy began, and were continued at every port that the *Baltimore* touched. It was the good fortune of Admiral Watson to find the entire Mediterranean fleet of the British navy in command of Vice-Admiral Sir John Fisher, with Rear-Admiral Lord Charles Beresford second in command — a notable assemblage of war-vessels. More than usual courtesies were extended to the American ship by the British authorities both afloat and ashore. It was necessary for the *Baltimore* to go into quarantine at Malta, but on the Fourth of July, despite the *Baltimore's* isolation the entire English fleet dressed ship in honor of the day. Sir John Fisher arranged a dinner for Admiral Watson, but he was unable to accept on account of illness. To the representatives of the American admiral Sir John recalled the fact that it had been his privilege to serve as midshipman in that first attack on the Taku forts in the fifties, when Anglo-Saxon stood by Anglo-Saxon in the hour of need. It was on this memorable occasion that Commodore Tatnall of the American navy rushed to the relief of the hard-pressed English squadron with the now famous cry of "Blood is thicker than water."

At Gibraltar a cordial welcome awaited the *Baltimore*, extended by Sir George White, the hero of Ladysmith. At Gibraltar Admiral Watson came near stampeding the staff of Spanish servants at the American Consulate. The servants had been apprised of his coming, and they practically rebelled and threatened flight in the event of the arrival of the terrible fighter who had been designated to lead the squadron against the coast of Spain! On September 8, the *Baltimore* reached New York, and Admiral Watson hauled down his flag and retired from active sea-service. Shortly after his arrival he was apprised of his appointment as president of the Naval Examining Board, the body which passes on the promotion of officers.

BAS-RELIEF OF ROBERT LOUIS STEVENSON. (Saint-Gaudens.)

A TRIUMPH OF AMERICAN SCULPTORS

THE REMARKABLE ADVANCE OF AMERICAN SCULPTURE—MR. SAINT-GAUDENS OUR GREATEST REPRESENTATIVE—THE HONORS AT THE PARIS EXPOSITION SHARED BY HIM, RODIN, AND MEUNIER—OTHER NOTABLE AMERICAN WORK

BY

KATHARINE DE FOREST

THE works of American artists occupied the central and most conspicuous place in the great glass rotunda devoted to sculpture in the Palais des Beaux Arts at the Exposition. Next to France itself, America carried off the most medals and awards.

That this last should have been the case is a striking exemplification of the artistic development of our country within the last decade. Not only was American sculpture very sparingly represented in 1889, but only one man then, Mr. Paul Bartlett, showed work of incontestably great merit. This year our exhibit in point of size was still to that of France only as is a pygmy to a giant. It is well for us to realize that it was composed of the works of only thirty-one men, while the French exhibitors numbered over three hundred; moreover, while the level of talent among Americans was indisputably high, the average standard in conception and execution among the French was no less so. But enough originality and individuality characterized the ensemble of the American work to make it stand out among that of all the other countries, and it was seen that we had certain sculptors of great distinction. The chief interest of any international exhibition lies in its opportunity for comparison. And the Palais des

A PORTRAIT.
By John Flanagan.

SWIFT RUNNERS.

By John Flanagan — who was awarded a Silver Medal at the Exposition for this Piece.

Beaux Arts brought together and placed side by side three men who, each in a very different fashion, realize an ideal in sculpture, — the Frenchman Rodin, the Belgian Constantin Meunier, and the American Saint-Gaudens. It was a great triumph for America that for many of the most intelligent critics Mr. Saint-Gaudens was the most complete of these three.

By John Flanagan.

To understand this point of view we must look at the works of these great men not as individual achievements in sculpture, but comparatively in their relation to the ideal in their art. M. Rodin has never shown himself to be an all-round sculptor, and the separate Rodin exhibition proves this still more conclusively. That is to say, Rodin is not a sculptor uniting form with thought like Michael Angelo. He makes living things, he translates nature into art. When he tries to synthesize his mental impressions, to unite a great number of these into one work, he is not entirely successful, as in his much-discussed statue of Balzac.

M. Constantin Meunier, on the other hand, does not give an impression of life. He does not seem to have a strong feeling for form. His principal work at the exhibition, "La Moisson, La Terre," "The Harvest, The Soil," a large high-relief, representing a group of harvesters in a field of ripened grain, was a masterpiece because of the

loftiness of his idea, through his great conception of manual labor as the link uniting man to the soil, interpreted in a work of art of extreme poetic beauty. But it did not give the feeling of life. His figures were symbols, and not living men and women.

In Mr. Saint-Gaudens we found the same *recherche de la vie*, the constant seeking after life, that we saw in M. Rodin, and the lofty thought of M. Constantin Meunier. He added also a third element which was of the deepest interest to foreign critics, as it is to Americans, and that is that all his work bore such a strong impress of the spirit of his country. If we examine his exhibits at the Grand Palais, we shall see that with a feeling for form like that of the Greeks, and the love of movement which is so characteristic of modern sculpture, they embody the most marked of all our American traits — vigor, energy, will-power, resolution, patriotism, and the sentiment of the independence of man.

The great standard of a work of art is simplicity. The great man in any art is he who

HORSES.
By Frederick Mac Monnies.

THE WRESTLERS.

By J. H. Rondebusch—awarded a Bronze Medal at the Exposition

THE SHAW MONUMENT IN BOSTON.
Saint-Gaudens.

can create something that is simple, and yet with this simple thing give a fine and elevated emotion. The literary artist achieves this through the tact with which he chooses his words and facts and arranges them in a certain order. And in Saint-Gaudens's statue to General Sherman (see frontispiece), which was his principal exhibit at the Exposition, the power which moves us may be explained in the same way. The life in it first arouses us, steed and rider give an impression of advancing in a fine onward movement, which we feel in every detail; in the arch of the horse's neck, for instance, the flap of the military cape blown back by the wind. The group is a joy because of its splendid modelling, but through an infinity of means the sculptor has given it more than that. He has made every line in the General's stern, spare figure and grave, beautiful face full of psychological suggestion. You read in its simplicity, so devoid of anything melodramatic, of all the ordinary panache of military glory, singleness of purpose, resolution, heroism, patriotism, all the finest qualities belonging to man, and the heart thrills responsively as it recognizes them. The winged Victory is Greek art transformed by an American temperament and the special impress of his country. The symbol takes the shape of the

A HEAD.
By John Flanagan.

HORTENSE LENORE MITCHELL.
By John Flanagan.

THE PURITAN.

By Saint-Gaudens — awarded a Grand Prix.

MICHAEL ANGELO. By Paul Bartlett.
The bronze Original of this is in the Reading-room of the Congressional Library, Washington.

eternally alluring female form, but the type is American. The figure has the particular distinction, fearlessness, and purity of the American girl, and even a little of her stiffness.

Mr. Saint-Gaudens has profited by the sculpture of other countries, and at the same time remained peculiarly of his own. You see this in all his work. In the "Shaw Monument" there is the same astonishing life and movement that there is in the statue to Sherman. You fairly hear the beat of the soldiers' feet as they march past, and from it breathes the same lofty sentiment of patriotism. "The Puritan," again, is a symbol, a figure capable of reviving a whole epoch of our national history. The continuity of everything which exists, to my mind, can be preserved more fully by sculpture than in any other way. Suppose for a moment that every historical record in America, and everything in writing bearing upon its history, should be lost during the course of the ages, the exact spirit of two periods at least could be seen through these statues of Mr. Saint-Gaudens.

His defects, in the eyes of the best æsthetic authorities abroad, arise from his very qualities. He is apt to give a little too much importance to details, and he sometimes loses in largeness of treatment by this. Detail that is carried too far becomes petty. In the single impression given by a great and noble statue like the General Sherman, your attention is distracted rather than engaged by such care of details as is shown in the lines in the horse's neck. But the Exposition would have placed Mr. Saint-Gaudens, if he had not held that position before, among the greatest of living sculptors. What is the constant wonder of his contemporaries is the extraordinary capacity for freshness of impression that he has been able to keep. The secret of it, I think, is in the fact that he has always kept his mind and soul apart from everything that was common and vulgar, and that therefore he has vibrated only to all that was best and finest in our national life.

One thing which the international exhibition brought out very clearly was the fact that no country was preëminent in sculpture which did not possess a great sculptor. Italy has no great sculptor, and the exhibit of this country, which, from the fourteenth to the seventeenth century, led the world in this branch

DANIEL GARRISON BRINTON.
By John Flanagan.

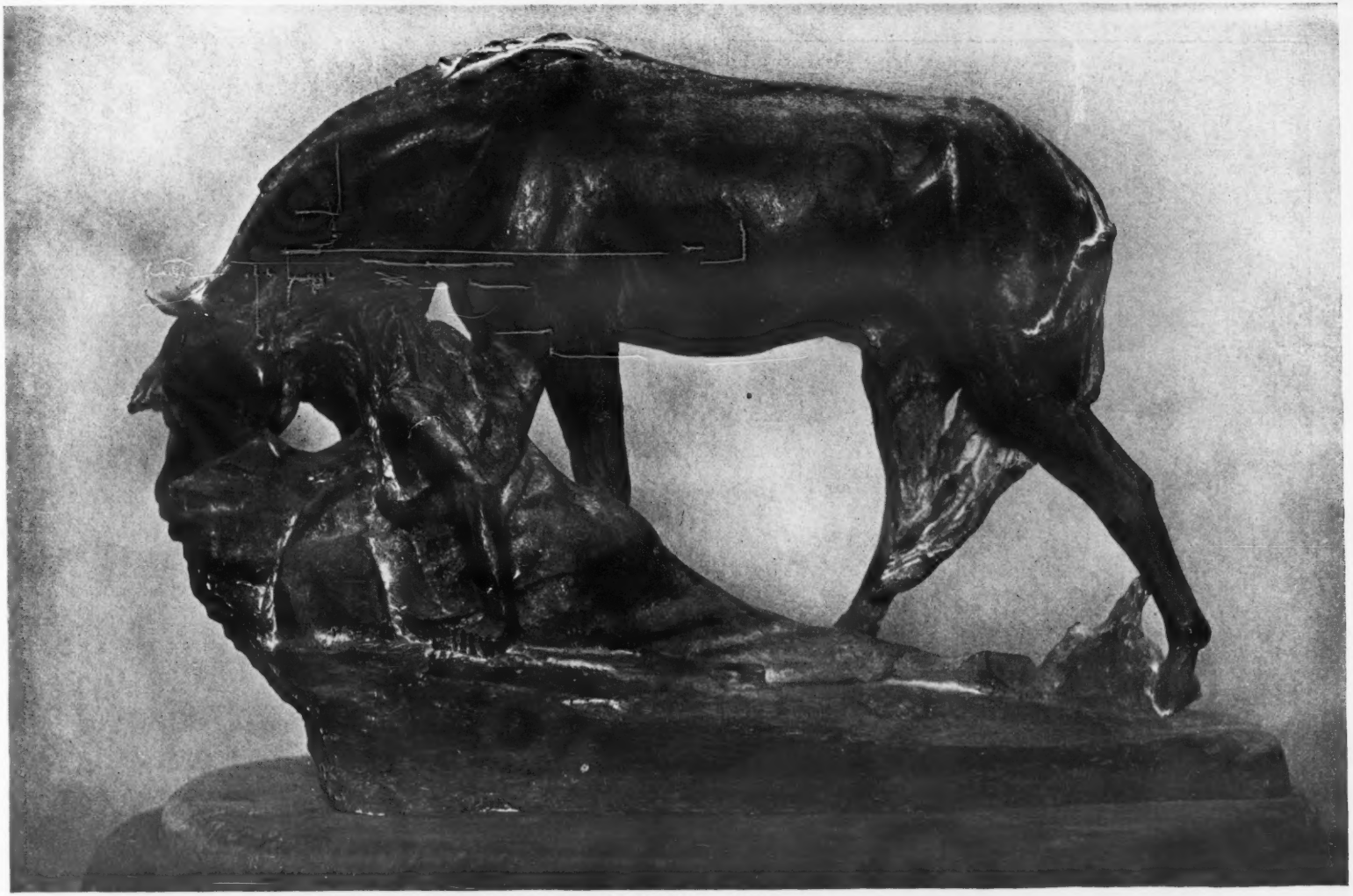
PAN (awarded a Gold Medal).
By George Gray Barnard. In Central Park, New York.

of art, was almost entirely without interest. Neither had Germany an exhibit of importance, nor Spain nor England. Such sculptors as Chapu, Frémiet, and Rodin in France, Constantin Meunier in Belgium, and Saint-Gaudens in America have raised the whole standard of sculpture in their respective countries.

Mr. Mac Monnies, the other American sculptor, who with Mr. Saint-Gaudens received the Grand Prix at the Exhibition, is an artist of extraordinary virility, versatility, and erudition. He does not stand apart like Mr. Saint-Gaudens. His great bas-reliefs, "The Army and the Navy; the Heroes of the War of 1861–1865," from the triumphal arch of Brooklyn, are magnificent groups, full of the intensity of war, of the martial spirit expressed with force in comprehensive detail, but they are not as great as the "Chant du Départ," by Rude, on the French Arc de Triomphe, by which they have evidently been inspired. Mr. Mac Monnies does not stand among his contemporaries as a personality working from an individual inspiration, but rather as a sculptor of the highest culture with many ideas and absolute knowledge and command of all the possibilities of developing them. But how many sculptors are there in the world who could show side by side a work of the robust power of his group of horses — even though these may suggest the horses at Marly-le-Roi and may not be so good as these last — and the charm of the "Bacchante"?

MISS AGNES LANE, MISS PHŒBE A. HEARST, AND MISS ANNE APPERSON.
By John Flanagan.

Mr. Paul Bartlett, medalled in 1889, and therefore member of the jury and *hors concours* in this Exposition, is another man who held a high place of honor in the American group. Mr. Bartlett's talent, to my mind, is never best shown in his large statues, which sometimes, as in the "Michael Angelo" of the Grand Palais, lack simplicity and grandeur, but the "General Lafayette" unveiled in Paris the 4th of last July is now one of the fine statues of the French capital. It is full of movement, splendid in its modelling, and a work of great distinction and elegance.



INDIAN AND HORSE.

By Solon H. Borglum — this was awarded a Silver Medal at the Exposition.

George Gray Barnard is one of the sculptors who was most noticed because of his marked individuality, his fashion of transforming the antique according to his own temperament, evidently strongly imbued with the American spirit of originality. This was especially seen in the "God Pan," placed out of doors, near the Pont Alexandre III. From all time the French conception of the god Pan has been a little *Monsieur* with horns on his head, while Mr. Barnard's Pan was a vague divinity embracing all nature, a strange, bizarre god, very much such a one as Edgar Poe would have conceived if he had undertaken to give his personal vision of Greek antiquity. The statue received a gold medal, and was a distinctly American triumph.

Mr. John Flanagan, one of Mr. Saint-Gaudens's best pupils, was another sculptor who, in his fine "Head of an Athlete," also interpreted the antique through an American temperament. His "Swift Runners," a beautiful bas-relief in which the racer whose forces were spent was handing a lighted torch on to his successor, is a work full of poetic symbolism and charm. Mr. Borglum in his "Horse and Indian" showed a piece of strong lifelike sculpture, particularly interesting in composition, which was full of American spirit. Both he and Mr. Flanagan were silver medal men. Mr. Rondebusch, again, in his lifelike

DANCING CHILDREN.
By Karl Bitter.

AN ATHLETE.
By John Flanagan.

"Wrestlers" gave an American version of an antique subject. Mr. Brooks in the "Statue of General Cass" and "The Song of the World" showed himself a brilliant artist. Mr. H. A. MacNeil was original in conception and strong in execution in "The Sun God." Bitter, Procter, Breuner, Graply, Mrs. Vonnoh, Mlle. Kuhne Beveridge, and Miss Enid Yandell all had exhibits of interest. In most of these, however, we found ourselves in the domain of three-quarters of the French sculptors, men who were perfect artisans in art, but not artists. The difference between the two is that the artist is capable of conceiving a great thing and executing it. The artisan has only the power of execution.

The conclusion that America may draw from the Sculpture Exhibit of the Exposition of 1900, if we may draw a conclusion, is that we must not have the idea that art, and sculpture in particular, is to be learned in France. Its source is in the individual soul of the artist, and the American who would reach the highest mark in it must first see to having a *belle âme Américaine*.

THE BUILDING OF A GREAT CAPITAL

THE CENTENNIAL OF WASHINGTON AS THE SEAT OF THE NATIONAL GOVERNMENT—THE STORY OF ITS SELECTION AND OF ITS BUILDING—THE PARSIMONIOUS BEGINNINGS OF ONE OF THE HANDSOMEST CITIES OF THE WORLD

WASHINGTON, now become one of the great capitals of the world and one of its most beautiful cities, is fast becoming also one of the most attractive places of residence in any country. But a great impetus to its proper ornamentation is likely to follow the approaching celebration of the one-hundredth anniversary of the establishment of the national capital there. The story of its selection and of the early growth of the city is as interesting as it is opportune. It in a way is the history of the Union in epitome.

It cost the Federal Congress a long time and a bitter wrangle to decide where the capital should be; and the decision was made at last by a political "bargain."

WASHINGTON AND GEORGETOWN IN 1812.
From a contemporary print.

Sectional jealousies were strong, and members of Congress from New England and from New York were afraid that those from the South might gain undue advantage over them.

So stubborn grew the contest it was feared that the Republic, as yet none too strongly welded together, would be shattered before a settlement could be made, and but for the political sagacity of Alexander Hamilton, there might have been grave danger.

The Southern members, eagerly seconding Washington's fondly cherished desire, had asked that the seat of the Federal government be established on the banks of the Potomac; and when Congress refused this request, their anger had rivalled the anger of the Northern men at the opposition of the South to Federal assumption of state debts incurred during the Revolution. Might it not be, Hamilton asked Jefferson, at a chance meeting in front of the President's house in Philadelphia, that the Southern men would agree to vote for the assumption of the state debts if the Northern men would support a bill for a capital on the Potomac, and would not the Secretary of State exert his good offices to bring such a result about? The suggestion came as if upon the thought of the moment; but it was so earnestly and eloquently put forward by Hamilton that Jefferson declared that "although a stranger to the whole subject," he would be glad to lend what aid he could.

With his powerful aid the assumption bill secured the sanction of Congress.

THE SITE SELECTED BY WASHINGTON

The site of the present city, covering the lower portion of the district, was selected by Washington in January, 1791, but it had been admired by him many years before. When a boy he saw it while riding the country on horseback, and he spoke of it when as a young man he camped with Braddock on the hill where the Naval Observatory now stands.

Washington, always more of a merchant and engineer than artist, had thoughts of a great commercial city there, with the navigable Potomac reaching to the sea to help it in the race for supremacy; and it was with more than his usual zeal and hopefulness that,

in the early spring of 1791, Washington set about planning the future seat of government. The private owners of the land proved a source of vexation and of some delay. Many of these were the descendants of a little band of Scotch and Irish who had settled on the land a hundred years before, and had inherited from their fathers ability to drive a hard bargain.

OLD DAVID BURNS AND HIS FARM

Aged David Burns, a justice of the peace and a tobacco planter in a small way, proved the most stubborn and greedy of all. Even Washington was at first unable to do anything with "obstinate Mr. Burns," who did not want a capital at his front door, and did not care whether or not the seat of government came to the banks of the Potomac. Washington argued with him for several days, explaining to him the advantages he was resisting; to all which, so the tradition runs, Burns made reply: —

"I suppose you think people here are going to take every grist that comes from you as pure grain; but what would you have been if you had not married the widow Custis?"

Burns at last capitulated, and transferred his six hundred acres, which he did not wish to see spoiled for a good farm to make a poor capital, on the same terms that had been made with the other owners of the site — the government to have one lot and the original owner one lot alternately, the latter being also paid $125 per acre for such part of his land as might be taken for public use. Burns stipulated that the modest house in which he lived should not be interfered with in the laying out of the city; and since this condition was agreed to by Washington, Burns's cottage stood until a few years ago, one of the historical curiosities of the capital.

After David Burns, the most considerable owners of the land taken for the federal city were Samuel Davidson, Notley Young, and David Carroll, the last named one of the three commissioners selected by Washington to have entire charge of the surveying and laying out of the district and the erection of the necessary public buildings. The other commissioners were Thomas Johnson, of Maryland, and David Stuart, of Virginia; and on April 15, 1791, with impressive Masonic ceremony, and in the presence of a goodly assemblage, they laid the first boundary stone of the district at

LOOKING OVER THE CITY ABOUT 1820.

THE VAN NESS HOUSE.
A famous Washington landmark.

Jones's Point, on the Virginia side of the Potomac. Early in the following September, the commissioners decided to call the federal district the Territory of Columbia, — a title changed some years later to the District of Columbia; and the city to be established on the river bank the City of Washington — this without the knowledge of the President, but with the common consent of Congress and the people.

THE DESIGNER OF THE CITY

Meanwhile, Major Pierre Charles L'Enfant had been chosen by Washington to draw the plan of "the new Federal town." L'Enfant, a Frenchman, and a kinsman of D'Estang, was a skilful military engineer who had come to America in April, 1777, in the train of Lafayette. He devoted the spring and summer of 1791 to elaborating his plans for the projected city. One point he quickly settled — he would not plan for thirteen states and three millions of people, but for a republic of fifty states and five hundred million; not for a single century, but for a thousand years. Dominated by this thought, he builded better and wiser than any one in his lifetime was willing to admit; for the chief men of his day, meagrely educated and reared in the practice of the strictest private economy, were provincial in their ideas of art and government expenditure. Jefferson was almost the only man then conspicuous in public life who had had the advantages of extensive foreign travel; and even Jefferson wished the city laid out in the regularity of squares, with all the streets intersecting at right angles, as in Philadelphia, and, unfortunately, in most other American cities. L'Enfant made the regular chessboard squares as Jefferson wished, but he put in so many avenues running at acute angles that the monotonous effect was happily destroyed and the opportunity presented for making the capital the magnificent city it has since become.

The states of Maryland and Virginia, prompted by the location of the federal capital within their borders, voted $192,000 to the United States to aid in the erection of the projected public buildings; and in March, 1792, soon after the completion of the survey of the city, the commissioners advertised for designs for the Capitol and for "the President's house," offering in each instance a premium of $500 and a building lot to the author of the accepted design. Among the submitted designs for the Executive Mansion was one by James Hoban, a young architect

THE OLD DAVID BURNS COTTAGE.
One of the original houses on the site of Washington.

of Charleston, South Carolina. This design, which followed that of the palace of the Duke of Leinster in Dublin, being approved, Hoban was awarded the premium, and engaged at a salary of one hundred guineas per year to superintend the construction of the mansion, which was soon called the White House.

THE DESIGNS FOR THE CAPITOL

For the Capitol sixteen designs were submitted by as many architects; but all, after careful examination, were counted unworthy of serious consideration. Soon, however, Stephen L. Hallett, a French architect residing in New York, sent to the commissioners a sketch of a design which met with favor, and he was invited to perfect it. Hallett had not completed his labors when Dr. William Thornton, an Englishman who had lately taken up his residence in America, submitted a design to Washington and Jefferson which so pleased them that the President requested its adoption, suggesting that as Thornton had no practical knowledge of architecture, the execution of his design be intrusted to Hallett.

A VIEW OF WASHINGTON ABOUT 1840.

Thornton's design thereupon was accepted by the commissioners, and Hallett was appointed supervising architect with a salary of $400 per year. The corner stone of what was to be the north wing of the Capitol was laid on September 18, 1792, when Washington delivered an oration and the Grand Master of the Maryland Free Masons an appropriate address. "After the ceremony," to quote a contemporary account of the affair, "the assemblage retired to an extensive booth, where they enjoyed a barbecue feast."

THE POVERTY OF THE TIME

Ill-timed and unseemly bickerings between architect and commissioner, the opposition of L'Enfant to raising funds by a public sale of lots, and many such difficulties delayed the completion of the north wing till 1800; but even these were not the only obstacles with which the builders of the federal city were compelled to contend. At the first sale of lots the hurtful rumor was industriously spread that Congress would never remove to the Potomac, but would remain at Philadelphia. In 1792 Washington wrote to the commissioners that unless greater activity prevailed, their whole previous labor might be lost; and later, he was obliged to make residence on the spot compulsory with them. Most serious and embarrassing of all was the ever present need of money. It had been hoped that before the sums subscribed by Virginia and Maryland were expended, the sales of lots would supply the balance needed to complete the public buildings. This expectation was only partly realized, — many of the early contracts for the sale of lots were afterwards repudiated, — and before the walls of the Capitol and the White House had reached the roof line, the commissioners were obliged, in 1796, to ask Congress for an appropriation of money. Congress responded to this request by authorizing the commissioners to negotiate a loan of $300,000. This loan was guaranteed by the government, but the money was not to be had on the terms proposed. After some delay, the state of Maryland, at Washington's personal request, took two-thirds of the loan, stipulating that the commissioners, who were all men of means, should add their individual guarantee to that of Congress — a startling indication of the government's poor credit. In 1798 Congress, again appealed to by the commissioners, voted an appropriation of $100,000, and in the following year the state of Maryland lent them half that sum, requiring, as before, private security for its repayment.

As a result of all these efforts, work on the Capitol and the White House made fair progress, and two other public buildings were begun and pushed to completion. The last named, brick structures, two stories high and containing thirty rooms each, were erected at

Photograph by Clinedinst.

A BIRD'S-EYE VIEW OF WASHINGTON FROM THE MONUMENT.

the corners of the twenty-acre plot, set down on L'Enfant's design as "the President's grounds." One, known as the Treasury Department building, occupied a portion of the site of the present Treasury building. The War Office, as the other building was called, occupied the site of the central portion of the present State, War, and Navy Building. This latter building, enlarged by the addition of a third story and a wing, was known in later years as the Navy Department Building, being removed in 1871 to make room for the new building.

THE CITY AS WASHINGTON LAST SAW IT

When Washington last beheld the city which bears his name, shortly before his death in 1799, it was a straggling settlement in the woods, almost wholly devoid of streets, with thirty or forty residences, — most of these small and uncomfortable, — and an unfinished Capitol and President's house. Indeed, Washington long remained a sparsely built, unsightly city and a comfortless place of residence. For more than a generation its growth in population was less than six hundred a year, a rate of increase that would now put to shame almost any village in the land; and so late as 1840 De Bacourt, the French Minister, could write that Washington was "neither a city, nor a village, nor the country," but "a building-yard placed in a desolate spot, wherein living is unbearable."

All this was changed by the struggle for the Union, which doubled the population of Washington and brought in freedom and Northern enterprise, but more important still, by a thousand moving and glorious associations, endeared the capital to the people of the whole country. Then came its re-making by Shepherd and his associates. Now it is a truly imperial city, and the judgment of Washington and the genius of L'Enfant have been vindicated.

"I'm afeard to take any of the issues to my bosom, I've had so many disap'intments, I've come to the conclusion that the best thing to do is to wave the old flag an' go in for number one."

MR. SANDERS TO A BOSTON CAPITALIST

HOW POLITICS AND BUSINESS BOARD AT THE SAME HOUSE—THE DISAPPEARANCE OF OLD-FASHIONED POLITICAL PRINCIPLES BOTH IN BOSTON AND IN GEORGIA—IS THE YANKEE "GWINE TO DRAP OUT'N THE GAME"?

BY

JOEL CHANDLER HARRIS

IT should not be forgotten that the world's work goes on in Harmony Grove just as it does elsewhere, though it may be as well to pay the inhabitants of the village the compliment of saying that they are not trying as hard to get rich in a day as the people of some other communities. Nevertheless, they believe in progress.

It need occasion no surprise, then, that on a particular day, not so very long ago, the presence of a capitalist in the village had caused a larger crowd than usual to assemble on the veranda of the tavern. The capitalist was from Boston, and he was looking over the ground preparatory to building a cotton mill. He had been taken in charge by Colonel Augustus Tidwell, a well-known corporation attorney.

His coming had been heralded by the local newspapers (in connection with a warm tribute to Colonel Tidwell), and the most of those who had seen the account had expected to meet a stout, florid man with side-whiskers, and with very decided views as to his own importance. The surprise was great, therefore, when the capitalist turned out to be a plain and simple man, with apparently no views of his own. He soon won the respect and confidence of those who, to say the least, are a trifle suspicious of strangers.

Now on the particular day when the crowd on the veranda seemed to be the largest, Mr. Sanders put in an appearance. He was introduced to the gentleman from Boston, and appeared to be very much pleased with him. After some general conversation, during which Mr. Sanders looked the stranger over very carefully, he remarked casually that there didn't seem to be such a great difference between a Boston man and a Georgian, after all.

"Did you expect to see any striking difference?" the gentleman asked.

"Well, not in form an' figger," replied Mr. Sanders, blandly; "but in these parts, some of the evil-minded have got a notion

that you Boston folks talk with a kind of twang — a sort of a cross betwixt a French horn an' a fiddle. The fact is, I had some sech idee myself, an' I had a mighty good reason for it. A day or two before the war, I went out to Injianny for to see my kinnery, an' they used to keep my teeth on edge all the time. My cousin's wife — an' a mighty good 'oman she was, too — used to have a way of hollerin', 'Sary Jane! shet the door!' an' the way she said it would fetch out the goose-flesh all up an' down my spine. I laid off to fetch some of her R's home an' use 'em for gimlets. Why, you could take one on 'em an' bore a hole plum through a ten-inch scantlin', be jigged ef you couldn't!"

At this point Mr. Sanders caught the eye of Mr. Tidwell, the well-known lawyer, and a broad smile went rippling across his face.

"I see you've hitched on to Gus," the old man remarked. "'Twouldn't surprise me one bit to hear that Gus was mighty glad to see you when you stepped ashore."

Several in the crowd indulged in laughter at this remark, and the capitalist concluded to humor whatever joke there might be in it. "Yes," he said, "Mr. Tidwell has been very courteous, and I am greatly indebted to him."

"Well, I allowed you'd be in debt to Gus before you was here many minnits," responded Mr. Sanders, with a very solemn face. "Gus is one among the few in this neck of the woods that's got the ginnywine Atlanty gait. Talk about Yankees! — well, they ain't cut the'r eye-teeth till they've done some tradin' in Atlanty. That town is made up of crosses betwixt Georgy crackers an' East Tennesseeans, an' they beat the world. Turn one on 'em in the same room wi' a Jew, an' when they come out, some un'd have to take aroun' a supscription paper for to git money enough to pay the Jew's way out'n town. Oh, yes! Gus'll show you how the thing's done!"

"Mr. Sanders always has a crow to pick with me," explained the lawyer, with a laugh.

"Why, what good would it do me for to pick a crow wi' you, Gus? I wouldn't be able to tote off narry a feather; an' ef I did, you'd make out a bill for it, an' collect intrust on it down to the minnit the account was paid.

"I persume," said Mr. Sanders, turning to the gentleman from Boston, "that you line up wi' Mark an' Mack on the gener'l issues of the day?"

"Well, I'm not so certain about that," replied the capitalist. "I used to be a rather warm Republican, but — well, the issues have changed."

"I wonder!" exclaimed Mr. Sanders. "You've got on good clothes, too, an' I've heard the boys whisperin' behin' the'r han's that you've got a right smart stack of blue chips. An' you say the issues have changed? Well, I'm glad of it from the bottom of my heart; yes, sir, I'm proud to hear the word. I've heard talk of the tariff ever sence I could look over a duck's back — free trade an' pertection; tariff for revenue only; free silver; sound money; the honest dollar — Lord! it seems like a dream that it's all over an' done wi'. I'm mighty much afeard it's too good to be true. An' it's got so now that a man can wa'r good clothes, an' have money, an' come from Boston, an' still not be right certain an' shore that he's a Republican! Be jigged ef 'tain't 'bout time for old Brer Lion to strut out'n the bushes an' git under cover wi' the lamb."

"No doubt it seems queer to you. In fact, it is queer to me; but that is the state of the case," the gentleman declared.

"Well, I'm mighty glad to hear it, an' yit they's a fly in the 'intment. It's good news for me, but I don't reckon Gus thar will like it."

"Here he comes with another crow," said Colonel Tidwell, laughing.

"Oh, no, Gus; this is a buzzard." At this the crowd laughed heartily.

"I can't imagine why the Colonel should be worried about it," the visiting capitalist suggested.

"That's because you don't know how sensitive he is," replied Mr. Sanders. "Well, fifteen or twenty year ago me an' Gus, an' likewise beloved friend Mack up yander in Washin'ton, was all journeymen greenbackers. We know'd, in reason, that nothin' on the face of the yeth would save the country but a pile of greenbacks as big an' as high as a meetin'-house. Mack, he kept things warm in Ohio, an' Gus helt up our eend of the line in these parts. Then when we found out

that the wealthy classes had determ'd to pervent the issue of more paper, we went in for specie — we took up silver; an' here we went, whoopin' an' hollerin' — not only me an' Gus, but Mack, too. An' then, some'rs along in thar, Gus he took an' defected. He got to shavin' notes an' buyin' up mor'gages, an' he purty soon come to believe that 16 for 1 was a heap better than 16 to 1; an' then about that time, Mack, he deserted the banner, an' things has been gittin' more lonesomer all the time.

"The fact is," Mr. Sanders went on, "it's come to that pass wi' me that I'm afeard to take any of the issues to my bosom, I've had so many disap'intments. I've come to the conclusion that the best thing to do is to wave the old flag an' go in for number one. You may say what you please about the parties, but it's made manifest in the fleshpots that too much an' too many principles, an' all the old sentiments, is a burden to the politicians, an' for the last thirty year or more they've been a-drappin' 'em over the fence on both sides of the road, an' a-flingin' 'em in the bushes. Why, in these times of trade an' business, a feller ain't got time for to git out his Sunday-school books to see whether he's a-walkin' in the straight an' narrer path. Ef you're agwine to keep up wi' the percession, you'll have to git behind Hanna an' Mack on the plank road, an' you'll have to keep a-movin' ef you don't want to git run over."

"I take it, then," said the visiting capitalist, smiling, "that you believe in practical politics. So do I, but there should be a limit to practical politics. There is no reason why the republic and its institutions should be sacrificed to the greed of men and parties."

"That's mighty purty talk," Mr. Sanders assented, "but, shoo! it sounds like it was fished from the bottom of a dream. Why, ef Mark was to hear you gwine on that away, he'd be tickled to death; he'd think it was a tale told for the purpose of foolin' the people. When you talk about limits, you make me feel like I'm in a game of draw, knowin' that the other feller is boun' to ring in a cold deck on me. You don't have to go to the dictionary to find out about some matters. Ef you'll take me by my lily-white han' an' lead me to the jumpin'-off place, I'll show you the limits to folks's greediness. It's mighty nigh come to the pass where it's a tussle betwixt next-door neighbors as to who shall have what the other's got. Ef we could keep this sperrit in politics, all'd be well; but the lesson that you fellers has been a-teachin' us for the last thirty year is that politics an' business board at the same house, an' sleep in the same bed. That bein' the case, what's the use of fetchin' in a rule that won't fit the game, no matter how you fix it? What's the use of talkin' about principles an' patr'itism at this time of day? It's like puttin' a great big block on a mighty little dog. Ef you're gwine to block your dog, git one that he can haul from trough to platter.

"I'm old enough for to be gray in the mind, an' I've allers took notice that men in trade or politics is turribly hampered ef they don't wrop th'r principles in a camphor rag till after hours. Why, 'taint been so mighty long ago that I heard talk of a preacher gittin' up in the pulpit an' sayin' that prosperity is one mighty good sign of Christ'anity. 'Twas a bran'-new idee to me, bekaze I never come across it in my Bible, much as I've read it. The way I account for that is that my Bible was printed in the thirties, an' I reckon they've got a new one out by this time."

"Some of our most distinguished and successful business men are noted for the interest they take in church work," suggested the visiting capitalist. "Don't you think they are setting a fine example to the rising generation?"

"Tooby shore, tooby shore!" exclaimed Mr. Sanders, enthusiastically. "Gus thar is one of our handiest men in church work. It's a great blessin' to be able to rake in intrust all day endyorin' of the week, an' then have the pleasure of passin' round the hat on Sunday. They say Gus smacks his mouth ev'ry time he hears a nickle drap. An' then, ag'in, when you come to look at it right close, it must be a great relaxation for a preacher who's persumably been studyin' the Bible all the week to git up in the pulpit an' talk politics on Sunday, an' git patted on the back by the wealthy members of the congregation. It kinder keeps things evened up. As for me, I'm not much of a church-worker, but I can set in thar an' sleep jest as sound as any of my pew-neighbors. It's all

a matter of habit an' practice. A man can go to church an' sleep, or he can go to work the brethering; but ef he's agwine to be a success in politics or business, he's got to find out early in the game that he can't afford to be hampered wi' too much sentiment an' too many principles."

"Well, it is certainly true that trade an' business are of very great importance," said the capitalist, "but I think that principles are of still greater importance."

"Oh, you do?" exclaimed Mr. Sanders. "Well, you can talk that way down here, but you better not talk it too loud up thar whar you come from. They tell me that the syndicaters is ready to call out Teddy an' the army when a feller begins for to talk about right an' jestice, an' little things like that. Thar's your leadin' man up thar; didn't he have to take water on the gener'l proposition? Seems to me I seed somethin' about it in the newspapers."

"You refer to Senator Hoar," suggested the gentleman from Boston. "Well, it is no secret that he has disappointed some of his best friends."

"Well, I don't reckon that hurts his feelin's much. He says p'intedly that Mack is the most beloved president sence George W. sot in the cheer and cussed out the cook. The meanin' of that is that Hoar is dead in love wi' Mack. I ruther like Hoar," Mr. Sanders went on. "About a dozen year ago, the boys wanted to have kind of a bill passed, an' nothin' would do 'em but I must go along. Well, they fooled along with the bill, an' jest for fun I got our member to try an' see ef he couldn't ring in Murder Creek on the Navigation bill. Well, your man Hoar got hold of the name — Murder Creek — an' after he found out it was a Southern projick, he got on the floor an' ripped aroun' an' snorted, an' waved his coat-tails, an' pawed the air, an' ripped his britches, an' got red in the face, an' jest wouldn't have it. 'Is it right,' says he, 'for to rob the soldiers an' sailors of this great nation, an' pinch the stomachs of the'r wives an' orphans, in order to waste the substance of the republic on a scheme to dredge Murder Creek?' says he. And as ef that wan't enough, he riz up on his hind legs an' called the calm attention of the loy'l people of the republic to the name of the stream — 'MURDER CREEK!' he yelled, an' you mought 'a' heard him two mile. I never know'd what bloody-minded folks me an' my neighbors was till Hoar told me all about it in that speech. I was most as sorry for Hoar as I was for myself. He never has found out, I reckon, that he made all that fuss over a neighborhood joke that's forty year older'n he is. Murder Creek will hardly float a chip. In a drouth, you wouldn't know they was a creek or a branch in ten mile of the Creek.

"But I know'd then, jest as well as I know now, that he didn't keer a thrip for the Murder Creek item; he was just a-talkin' for home consumption. That's what he was doin' when he lit on Mack's Philippener scheme. He know'd jest how fur his principles would go, an' when he got to the p'int whar the string got tight, he jest cut 'em loose, an' left 'em in the bushes, an' fell blubberin' on Mack's heavin' bosom, lookin' a little sheepish maybe, but feelin' jest as good as ef he'd never heern tell of principles. An' I tell you he flung 'em away in the nick of time, too. He had already hollered out in a sperrit of forgitfulness that Mack's scheme would be the ruination of the republic. A little more, an' he'd 'a' done some damage. But now he's got two records — he's a patr't at home an' a Hanna man at the White House."

"Well, in Boston, the most substantial republicans are not in favor of the programme of imperialism," said the visiting capitalist. "We are very heartily in favor of the expansion of trade and business, but we are just as heartily in favor of justice and right. We don't believe that trade can be increased by killing people, and we don't believe that Congress has any power to act outside the Constitution."

"Why, you don't tell me!" exclaimed Mr. Sanders. "You don't mean to say that after preachin' to we-all down here that trade and business an' money an' development an' commercialism is the mainstays of life, an' the hope of the Nation — you don't mean to say that you're gwine to throw down your hand an' drap out'n the game jest as we've begun to git a few chips on our side of the table! Well, well! after that I reckon I'd better go an' hunt in Gus's back-room an' see if he's left anything in the bottle."

A NOTABLE ADVANCE IN COLOR PHOTOGRAPHY

COLOR NEGATIVES MADE IN AN ORDINARY CAMERA — SUCCESSFUL DEVELOPMENT OF AN OLD PRINCIPLE — FIRST PHOTOGRAPHS IN COLOR OF MOVING OBJECTS—SCREENS WITH 531 LINES TO THE INCH

"IT is now possible for a newspaper correspondent in China to take snap shots in his ordinary camera, fitted with a newly perfected screen, to send the negative to New York, and there have the picture reproduced *in all its original colors*, the printer having no previous knowledge of the colors themselves."

This is the somewhat startling claim made by two American inventors, Mr. C. L. A. Brasseur and Mr. Sebastian P. Sampolo. A sample of their work, showing the progressive steps of the method will be found as a special insert in this issue of THE WORLD'S WORK. It opens up a whole new world of possibilities in the field of illustration, the modern development of which has been one of the Seven Wonders of our time, though we who are in the midst of it all hardly realize the fact. In an hour to-day any one with eyes can learn more about the externals of China and the Chinese, for instance, than would have been possible by any conceivable means short of a visit to that country twenty-five years ago. The causes are improved photographs and the consequent extension of illustration in newspapers, magazines, and books.

But so far as color is concerned we are almost as badly off as our forefathers. The camera is not only inefficient, but often an astounding liar in its reports of the colors upon which it looks; and the successful accomplishment of what Messrs. Brasseur and Sampolo believe they have done would soon work most revolutionary changes in the matter of making pictures.

Every reader of current magazines and books is familiar with the results of what is known as "three-color work."

With all its present shortcomings, this process may fairly be credited with having done more than any other influence to give us satisfactory colored pictures at a reasonable price. Truth of form it achieves absolutely, photographically; and its defects are due to the mechanical difficulties of applying an absolutely correct theory.

But three-color work has limitations that have greatly hampered its development. Roughly speaking, the process consists in making three different half-tone negatives through as many colored screens. That is to say, the object or painting is placed before the camera as if an ordinary black and white half-tone (the usual sort of magazine illustration nowadays) were to be made; but between the lens and the half-tone screen is placed a piece of glass of a peculiar yellowish color; and then from this negative a printing block is made by the usual method. A second negative is made through a screen of red glass, and a third through a blue screen, plates being similarly obtained from each. By printing the plate made through the blue glass in a yellow ink, that made through the yellow screen in a reddish ink on top of it, and the third in a blue ink on top of these, all the original colors are produced.

Such at least is the theory, — and when proper pigments and exact registration are employed, the results are beyond criticism.[1]

As can be seen, this method is most cumbersome and the picture or object to be reproduced must be taken to the engraver's gallery. The exposure for the blue plate alone requires from five to thirty minutes (a year or two ago it was frequently over an hour), and the other colors take from thirty seconds to three

[1] As an instance of the difficulties, it may be stated that the only color known which gives approximately the luminous purple-red needed is rhodamine, one of the coal-tar colors; but unfortunately this fades in a few hours! So the printers have to use the next best, a bluish red, which is by no means exactly right.

1. THE ORIGINAL PRINT, made in an ordinary camera with instantaneous exposure, through a finely-ruled glass screen.

2. THE YELLOW PLATE, the first step in the process of breaking up the picture into the three colors.

3. THE RED PLATE.

4. RED AND YELLOW COMBINED

5. THE BLUE PLATE.

6. COMBINATION OF THE THREE COLORS.

A TIGER.

Showing the different steps in obtaining a picture in colors from a single negative by the Sampolo-Brasseur process. (*See "A Notable Advance in Color Photography."*)

Photographed at the National Zoological Park, Washington, D. C.

minutes additional. Of course this limits one to a very restricted range of subjects.

By this newly perfected process, however, only one negative need be made. It requires an exposure of only from $\frac{1}{10}$ to $\frac{1}{60}$ of a second, and the three plates into which this original is subdivided are just as accurate as those made by the old awkward plan. For the first time, therefore, photographic color prints of moving objects are possible.

What these inventors have done is to make a commercial possibility of an old theory by ruling glass screens with infinite fineness and accuracy and in breaking up the original tives, but if it be examined under a microscope, it will be found to consist of three interwoven images corresponding with the three sets of lines of the taking screen (see Figure 1).

Suitable printing plates must now be made from each one of these interwoven images. This is done by placing a black and white screen (Figure 2) over the positive in such a way as to hide two of the images and leave only the third one visible, say the yellow (Figure 3). A half-tone negative is made of this (see Figure 4), and during the exposure the most important step occurs: the negative plate (see Figure 4) is moved continuously

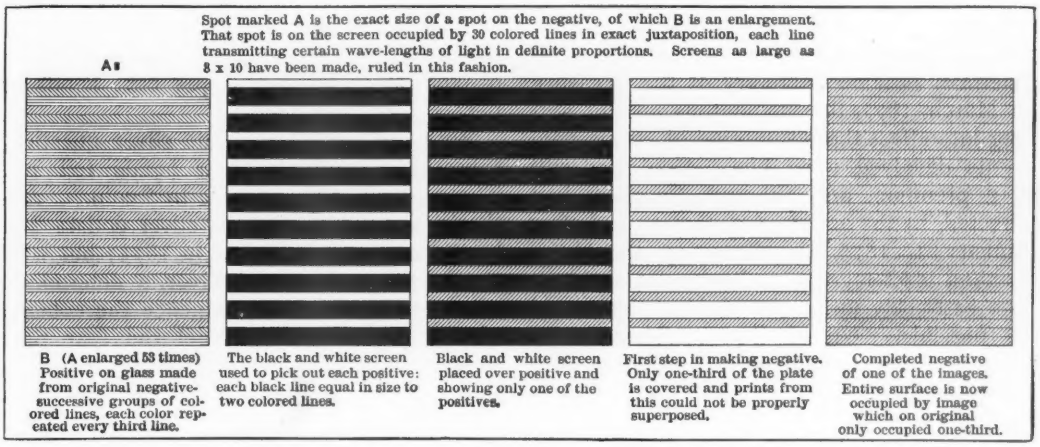


FIGURE 1. FIGURE 2. FIGURE 3. FIGURE 4. FIGURE 5.

negative into three, from which plates can be made to print on ordinary paper.

All makes of ruled polychrome screens can be used to obtain the necessary negatives for the Sampolo-Brasseur process. The best are those ruled in lines in groups of threes, one line being in a reddish orange color, one in a yellowish green, and the other in a blue violet color. These colors may vary somewhat, as the dry plates of different makers are not equally sensitive to the various colors of the spectrum. In case of a serious departure from these colors, corresponding changes must be made in the printing inks used.

The screens made by Mr. Brasseur have 531 lines per inch with no mistakes in any inch of more than one fifty-thousandth of that space.

Having obtained the necessary negative, a positive on glass is made. This positive is apparently no different from ordinary posi- until the image which occupied the one-third of the plate occupies the entire surface (see Figure 5).

This is essential, as to obtain the proper colors the prints must be superposed and not juxtaposed as they were in the original positive. The screen (Figure 2) is now shifted the width of one line, covering up the image of which a printing plate has been made and exposing a new image, say the red one; a plate is made of this one and the operation is repeated for the third image, the blue one.

Not only does this new method give an infinitely extended range to color photography, but the black and white prints are far superior to ordinary ones, as the color values are reproduced with absolute fidelity. In an ordinary photograph of the American flag, for instance, the blue would come almost white, and the red black, — a falsification of values entirely corrected by the Sampolo-Brasseur method.

THE GREATEST OF FINANCIAL FEATS

THE RESUMPTION OF SPECIE PAYMENTS BY SECRETARY SHERMAN — A DRAMATIC EVENT IN OUR HISTORY

BY

J. K. UPTON

ASSISTANT SECRETARY OF THE TREASURY UNDER MR. SHERMAN

THE resumption of specie payments and the restoration of the credit of the government under the load of war debt was one of the most dramatic achievements in all history. When Mr. John Sherman became Secretary of the Treasury in March, 1877, the momentous task of putting into effect the resumption of specie payments devolved upon him. Gold was still at a premium, and although Congress had directed, by the act of 1875, that on and after January 1, 1879, the Treasury should on demand exchange greenbacks for gold, it was extremely uncertain whether this would be possible. United States notes (greenbacks) to the amount of 362 millions were outstanding when the act was passed, though an earlier act then in operation would have reduced the total to 300 millions before the day set for resumption, had the act remained in operation until that time.

To meet this anticipated liability of 300 millions, Mr. Sherman decided that it would be necessary to accumulate gold to the amount of 120 millions. He believed that this gold reserve of 40 per cent would be ample to meet all demands, since, when the notes could be exchanged for gold, gold would be preferred as more convenient. One half of this sum was obtained in the first five months, by bond sales and from customs receipts. There was left seventeen months in which to raise the rest. The great problem seemed almost to be solving itself.

Mr. Sherman's handling of these bond sales was in itself enough to mark him as a great financier. When he took office a contract already existed with a syndicate of New York and London bankers, by which they were bound to buy at par a fixed amount of bonds. The demand for the bonds was increasing, and Mr. Sherman, believing that the terms given the syndicate were too liberal, brought the agreement to an end. On June 9, 1877, another contract was made by which the public was to have an equal chance with the bankers at an issue of 4 per cent bonds at par.

With the agitation of the silver question, subscriptions for the new bonds fell off. These bonds were payable in "coin." Authority for the coinage of silver dollars had been discontinued by law in 1873; but with the fall in the price of silver, a determined effort was made to recommence the coinage of these pieces. To dispel the fear thus excited that the bonds would eventually be paid off in a depreciated currency, Mr. Sherman addressed a letter to Mr. F. O. French, of New York, saying:—

> "The essential element of good faith in preserving the equality in value between the coinage in which the government receives and that in which it pays these bonds will be sacredly observed by the government and the people of the United States."

This declaration was accepted as having almost the authority of law, and eventually furnished one of the most effective arguments against the free silverites.

The bright prospect which the first steps in preparing for resumption had seemed to open was soon overclouded. War broke out in the Orient, which threatened to involve all Europe, and an unexpected foreign demand for gold was created. At home the clamor arose for free silver, supplemented by the noisy cry of the greenbackers. The threat of repudiation involved in these schemes depressed our securities in London, sending home in one week 75 millions of dollars'

worth of them, and drawing gold from New York in return. When Congress met in October, the first day of the session saw thirteen bills presented for the repeal of the Resumption Act, one of which passed the House without even a division. Many of the members who favored resumption lost heart, and a postponement of the project seemed imminent.

In the midst of this depression, Mr. Sherman was called before the Senate Finance Committee and asked: —

"Do you think the Resumption Act had better be repealed?"

He replied unhesitatingly: —

"I think not. Half of the fund has already been accumulated; a year remains in which to accumulate the rest. Repeal the act, and inflation will follow; either repudiation will result or the long and weary agony and struggle toward resumption will be renewed. Gold can be obtained by the sale of bonds in sufficient amount for the purpose. It is useless to take any steps backwards. If resumption is ever to be accomplished, now is the time."

It was plain that Mr. Sherman was persistently determined to resume specie payment in due time, if Congress would let him alone.

A little later the House Committee on Banking and Currency had an interview with a delegation of New York bankers, most of whom were evidently opposed to resumption, at that time at least. One of the delegation declared he would give $50,000 for a place at the head of the line at the Sub-Treasury in New York the day gold should be paid out at par for United States notes. The Committee largely shared the views of this delegation.

A few days later Mr. Sherman was called before the Committee and asked what he intended to do. He told its members very clearly that if let alone he proposed to carry out the law, and to redeem in coin on and after January 1st, all legal tender notes presented for that purpose at the New York Sub-Treasury.

To that end he proposed to increase the resumption fund by selling at once 50 millions of bonds, and more later if necessary. He was not afraid with the proposed reserve of 40 per cent to undertake resumption. The Bank of England when it resumed specie payments in 1822 had a reserve of only 22 per cent; state banks had for years redeemed notes on demand with a reserve of 33 per cent. If an extraordinary emergency should arise, he still had power to sell bonds to replenish the reserve.

In answer to an inquiry he said that he did not care what the "New York cashiers" had said; he wanted to know only what Congress proposed to do. If the Resumption Act was to be repealed, the sooner the fact was known the better. But of his ability to resume specie payments he admitted of no doubt. The interview lasted three days. At the end, Mr. Buckner, of the Committee, who had thought Mr. Sherman a visionary theorist, said he should interpose no further objections to the project. "But," he added to Mr. Sherman, "if you fail, you will be the deadest man in the country."

Mr. Ewing, another member, was not so complaisant. Coming from Mr. Sherman's own state, he probably thought it would help his political fortunes if he could only down the pugnacious Secretary. Squelched at the interview, he later ventured to declare his disbelief in the reported accumulation of gold in the New York Sub-Treasury. To satisfy this doubting Thomas, he was taken through the vaults and permitted to open the bags and count the gold to his heart's content. Nothing further was heard of him or his "phantom gold."

The bonds for securing the necessary gold reserve had, however, not yet been sold. There was little demand in any quarter for Government securities. The 4 per cents were below par, and the $4\frac{1}{2}$ per cents hardly better off. To put more bonds on such a market would have meant a disastrous fall in the price.

Under these circumstances Mr. Sherman, on April 8, 1878, visited New York, and met that evening at the Fifth Avenue Hotel Mr. August Belmont and the members of a syndicate of bankers to whom bonds had previously been sold. He announced to them that he proposed to sell 50 millions of $4\frac{1}{2}$ per cents for resumption purposes, and invited their coöperation, telling them he would like to get 103. They made no promises, but said they would consider the proposition and let him know the next day.

But Mr. Sherman had another string to his

bow. On the following morning he made to the representatives of the leading national banks substantially the same proposition. They asked for time to confer, and Mr. Sherman gave them twenty-four hours. That afternoon Mr. Belmont announced that the syndicate would give 101 for 100 millions of the bonds, one half for resumption and one half for refunding purposes.

Mr. Sherman promised a definite answer the following day.

Next morning brought from the representatives of the national banks an offer to take 50 millions of 4 per cents at par. This was the best they could do. On Mr. Sherman's asking them whether he should accept an offer of 101 if he could get it, the answer was a decided "Yes!" In the afternoon he told the Belmont syndicate that he would sell them 50 millions of the bonds at 101½, the syndicate to be allowed a commission of ½ of one per cent, less all expenses in the making and delivering of the bonds. As the syndicate wanted the bonds, they took them on these terms.

The announcement of this transaction attracted much attention, and increased Mr. Sherman's reputation as a financier both at home and abroad, for it was considered a great achievement to have placed the loan at such favorable terms when the market price of Government bonds was below par.

While the gold for the bonds was being quietly obtained and turned into the Treasury, Mr. Sherman put his house in order for the grand event. He authorized gold to be purchased for notes at the several assay offices, and ordered interest on the public debt to be paid in coin at the New York office only. He also made an arrangement with the New York Clearing House to accept notes in payment of United States coin checks or drafts passing through its hands on and after January 1, 1879. Officers of customs were directed to receive United States notes in payment of duties on imports. All these arrangements helped guard the coin reserve against special depletion.

Notwithstanding these precautions, and the fact that the syndicate had completed its contract and the Treasury held about 140 millions of gold coin, the premium on gold was persistently maintained until past the middle of December. Even later there were rumors of a combination in New York for a run upon the Treasury on the opening of the New Year. The source of the rumors was unknown, and Mr. Sherman paid little heed to them.

But the president of the National Bank of Commerce, who was also chairman of the Clearing House Committee, became so alarmed that, with the advice of other bankers, at 3 o'clock P.M., on the 30th, he sent an urgent request for the transfer from the Sub-Treasury to his bank of $500,000 in gold, in exchange for a like amount of notes. Of course the request could not be granted; but coming from such a source it gave Mr. Sherman some uneasiness — an uneasiness which was increased by the fact that Congress had suspended the law by which the amount of the notes was reduced, so that instead of the 300 millions anticipated, there were 346 millions to be provided for.

The year therefore closed with some forebodings, Mr. Sherman regretting that he had not made his store 25 millions larger.

The first day of January came on Sunday. On Monday, after hours of waiting, the wires announced the first news from New York that all was quiet in Wall Street. Near 3 o'clock this message came from the New York Sub-Treasury: —

"125 millions of notes presented for coin, 400 millions of coin for notes."

Resumption was an accomplished fact!

The prediction of Mr. Sherman had become true. When gold could with certainty be obtained for the notes, nobody wanted it. The country breathed easier, and the "New York cashiers" had an opportunity to sip their tea in quiet and reflect upon the ease of prediction and the perversity of results.

Mr. Sherman was now recognized everywhere as the leading financier of the world. The Board of Trade of New York invited him to sit for a painting to be hung in its hall, an honor tendered no other man but Alexander Hamilton. Abroad his fame was on an equally high level. Through his efforts the credit of the country had been lifted from the mire and placed beyond suspicion. The world knew it, and paid him the homage he had earned.

POLITICAL CHANGES OF THE CENTURY

INTENSE NATIONAL FEELING STRUGGLING WITH LIBERALISM SINCE THE NAPOLEONIC WARS—THE CONSEQUENT CHANGES ON THE MAP—THE LATER GROWTH OF COLONIAL AMBITIONS —THE DREAM OF WORLD-EMPIRE AS THE CENTURY ENDS

BY

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WHEN the nineteenth century opened, the Napoleonic wars had already begun, the wars which changed the boundaries of European states almost daily, and which finally left their permanent impress on the map of Europe. In the settlement that followed the downfall of Napoleon, and by which the status of European states was fixed for almost half a century, all the important states except France gained considerable territorial accessions. Prussia annexed the Rhine Province, Westphalia, and the Province of Saxony. Russia secured the lion's share of Poland and the grand-duchy of Finland. England fell heir to the Dutch colonies of Ceylon and the Cape of Good Hope, while Austria established her overlordship over the Italian provinces of Venetia and Lombardy. Belgium and Holland were temporarily united, and the German states formed a lax confederation which took the place of the Holy Roman Empire, destroyed by Napoleon in 1806.

In making this settlement, the Congress of Vienna followed the diplomatic methods of the eighteenth century. It represented governments, not peoples, and hence there was no thought of consulting the needs and predilections of the people. The sole aim was to secure a mechanical balance between the states, and to allow no state to grow unless compensation could be made to its powerful rivals. This system, which is identified with the name of Metternich, preserved the peace of Europe for forty years, but it brought the peace of death and the quiet of the prison wall. The aspirations and ideals of the French Revolution were put under the ban. In internal government the old régime of absolute monarchy was restored. Alexander I. of Russia, who had given Poland a liberal constitution, and who in general favored reform, soon became reactionary under the influence of Metternich, whose sole principle of political action was "the preservation of every legally existing institution."

The true political history of the nineteenth century is the struggle of liberalism and nationalism to assert themselves against the dead weight of this reactionary régime.

A CENTURY OF NATIONALISM

The nineteenth century has become the age of nationalism, where everything is subordinated to the welfare and growth of the national state, which is considered the highest expression of civilization. How can we explain this development? How account for the power which this idea has exercised in the immediate past?

All the dynastic interests at the beginning of this century were hostile to it. They clung to the system of balance of power, by which all broader aspirations were to be kept down. Provinces were married and exchanged, and whole populations were bartered without a thought of their convenience. Of this policy Austria was the chief representative. For centuries her reigning house had pursued the policy of enriching itself, with a true disregard of all historical fitness. It made not the least difference whether the dowried princess lived in Spain, Italy, or Germany; she was married, with her lands, to the scion of the Hapsburg house. Thus, instead of building up a strong national state like England or France, Austria created simply an agglomeration of jarring nationalities; and it remained the policy of her

court to stifle every aspiration for national political existence by her subject peoples.

But it was not only the interest of the courts and the diplomats that was hostile to nationalism. The whole spirit of the times was rather cosmopolitan and humanitarian than national. The belief in a general culture, in a common destiny of humanity, in the progress of the human race toward a millennium of universal brotherhood, — these were the constituent elements of the intellectual atmosphere of the time. Like Byron and Goethe, most cultured men considered themselves citizens of the world rather than of a particular state.

When thus apparently everything was opposed to the national idea, to what shall we attribute its growing strength and ultimate triumph? We may say that the tendency of history for the last five hundred years has been toward nationalism, away from the world-state idea of the Middle Ages; but how did individual men in the first half of our century become conscious of this movement, and enthusiastic for it, away from the cosmopolitan apathy and the dynastic interests that would have prevented its realization?

THE INFLUENCE OF NAPOLEON

This change in the minds of men is undoubtedly a result of the career and policy of Napoleon. By bringing the most incompatible elements together, by subjecting civilized peoples to the dominion of hated strangers, he led men to feel the necessity of national political unity and power, and thus aroused against his imperial policy a patriotic enthusiasm which became strong enough to wreck his career.

The experience of the great German philosopher, Fichte, is typical in this respect. He had been a thoroughgoing humanist, enthusiastic for the ideals of the French Revolution; but when the cohorts of Napoleon swept his native land, when the conqueror's army marched through his peaceful little Jena, he began to feel that the first need of life was a strong fatherland; and in his "Addresses to the German Nation" he became one of the first to stir up national patriotism. One of the results of the Napoleonic wars was the acquisition by Austria of some Italian provinces. Here, too, the domination of the stranger led to a burning desire for national strength and unity; and the Austrian oppression fired the courage and spirit of the Italian patriots.

The other great political force of the century, liberalism, though entirely distinct from nationalism, is often found in connection with it: it is often the reverse of the coin. A nation, to be strong and unified, needs a national consciousness, which best finds expression in a parliament and in the general participation of the people in political life. Self-government and the absence of a paternal administration are the core of the liberal system. It will be noted that when nations have fully developed they turn gradually away from the classic liberalism, as we see to-day, but during the middle period of the century these two great political forces in general worked together — nationalism and liberalism.

On the European continent the reaction was at its darkest during the twenties, when under Canning's leadership the dead pall was already being lifted in England. Alexander I. had become frightened at liberal agitation, and when in 1819 his agent, the writer Kotzebue, was murdered by students, it was easy for Metternich to persuade him of the dangerous character of liberalism. The Holy Alliance, in which Alexander was the leading spirit, therefore came to stand for everything that is dark and reactionary in politics. Not only in their own states were the monarchies anxious to suppress all freedom, but they were even ready to intervene in the affairs of other nations for the purpose of stifling nascent liberal agitation. Thus the Spanish colonies, which had revolted against their mother country, were to be reduced to obedience, and but for the promulgation of the Monroe Doctrine in 1823 and the diplomacy of Canning this would surely have been accomplished.

BOTH LIBERALISM AND NATIONALISM AT WORK

The first triumph won by nationalism in Europe was the independence of the Greeks. Canning recognized them as belligerents as early as 1823. Russia, to gain influence in the Orient, took up their cause, and in 1829 the kingdom of Greece was established. But all this was too far away from the centre of European affairs to have much influence upon them. The policy there remained intensely reactionary. In Prussia Hegel's philosophy, which canonizes the existing order, became

the philosophy of the state, while Austria had the most rigid and unbearable system of censure and religious disabilities that could be devised.

It was France that saw the first open revolt against this policy of darkness. The effort of Charles X. to do away with the last remnant of the constitutional order led to the July revolution of 1830. The government, which was then established with the "Citizen King" Louis Philippe at its head and Guizot as its leading spirit, was, however, liberal only in name. It was thoroughly Whiggish, represented only the great property holders, the upper middle class, and it held its power by a lavish use of corruption. No wonder that in the midst of apparent prosperity it suddenly broke down in 1848 when no one was expecting a radical change. In France the revolution of 1830 was a liberal movement. In other parts of Europe it was national. Belgium severed its connection with Holland, and unhappy Poland made a frantic effort to gain its independence, but it was unsuccessful, and it was punished by the loss of the Polish constitution which had been granted in 1815.

The next revolutionary movement, that of 1848, also has a mixed liberal and national character. Under the leadership of Kossuth, the Hungarians established a short-lived independent national government. The Slavic population of Austria made a similar attempt. In Italy insurrections took place in Venice and Lombardy against Austria, and in the Papal States against the authority of the Pope. In Prussia the king, the weak and gentle Frederick William IV., was prevailed upon to promise a national assembly, which ended by offering the imperial German crown to him, thus anticipating history by two decades.

In France the revolution was begun by the Liberal Republicans, but already on the second day the Socialists, who had been quietly growing in numbers during the last decade, seized the power under the leadership of Louis Blanc. Subsequently Liberals and Socialists neutralized each other so that Napoleon III. could make his rapid ascent from the presidency to the imperial throne. In general the revolution, both from a liberal and a national standpoint, was unsuccessful everywhere, and reaction again was temporarily victorious. This led to an unprecedented age of pessimism. The dearest hopes of the youth of Europe had been disappointed. The men who had the noblest and broadest aspirations were discredited or were seeking refuge in foreign lands. No wonder that the age turned to the dark philosophy of Schopenhauer and to the gloomy contemplation of realism in art. Nationalism was still only a popular movement: the governments had not as yet taken up its cause. They were arrayed against it, and for the time being it suffered defeat.

CEMENTING NATIONAL UNITY EVERYWHERE

During the next two decades, however, nationalism became the avowed principle of action in the political world. The growth of nations, the cementing of national unity, the fostering of national life, became the first care of statesmen. Germany, Italy, and Hungary gained political unity and existence, and in the United States the attacks upon nationalism were beaten down in the bloody Civil War.

The Crimean War of 1855, caused by Russian ambition in the Orient, led eventually to the establishment of a number of national states in the Balkans. In 1861 Moldavia and Wallachia united as a nation under the name of Roumania. In 1875 Bosnia revolted against Turkish authority. The consequent unrest brought on the Bulgarian massacres, which led to Russian intervention and the war of 1877. In the peace of San Stefano of 1878 Russia practically decreed the dissolution of the Turkish Empire, but her ambitions were curbed and her policy defeated by the Congress of Berlin. Montenegro, Servia, and Roumania were declared independent states. Bulgaria and East Roumelia were given virtual self-government, with a nominal dependence on Turkey. Bosnia was placed under the protectorate of Austria, while Russia was given some unimportant territory in Asia Minor. Throughout these developments the national principle was constantly invoked, both within these new states and among the diplomats that settled their destiny.

We need only recapitulate the events in central Europe to show that the growth of nationalism was the matter about which everything turned at this time. In Hungary the ancient constitution had been abolished in 1849, the Austrian government having been

supported by Russian intervention in the arduous task of suppressing the patriotic revolt; but after the Austro-Prussian War in 1867 Hungary became an independent kingdom with a completely guaranteed constitution. The *dénoûement* of the German drama of nationalism was as rapid as it was unexpected. In 1864 Austria and Prussia had fought side by side against Denmark for the duchy of Schleswig-Holstein; but in 1866 the strong Prussian national state turned against the old enemy of nationalism, defeated the armies of Austria, and forced that state out of the German confederation, in which it had been the reactionary element. The presidency of the North German Confederation was now united with the crown of Prussia. It needed only the war of 1870 against the hereditary enemy of Germany to bring into strong relief the new national patriotism, and to unite the North German states in a national empire.

In Italy nationalism found sustenance and nourished its flame in opposition to the dominion of the stranger; but it was also the assistance of the stranger that aided her in vindicating her independence. In 1859 Napoleon III. assisted the monarchy of Sardinia in gaining Lombardy, and caused himself to be remunerated by the two provinces of Savoy and Nice. The following year Garibaldi undertook his patriotic expedition into Sicily and Neapolitan territory, leading to the annexation of these as well as the Papal States and the formation of the kingdom of Italy with Florence as its capital in 1861. In 1866 Italy, as the ally of Prussia, though defeated by land and sea, gained Venice and obtained recognition as the sixth of the great European powers. The work was completed in 1871, when the French garrison left Rome and the Eternal City became the capital of Italy. In all these countries the struggle was bloody, but nowhere more tragic than in the United States, where it took a terrible war of four years to settle the supremacy of the national idea.

While the idea of nationalism was bringing long-separated populations together into political union and moulding the outward form of states, the force of liberalism was potent in their inner life. This is a broad term, and covers many shades of political theory, from an aristocratic exclusiveness to a broad and progressive democracy. But all these tendencies are the outgrowth of the French Revolution, and all more or less conform to a certain type of theory which we may call the classic liberalism. Its distinctive feature is the limitation of state power, the idea of *laissez faire*. It seeks political virtue in governmental machinery, in parliaments, in the extension of the suffrage, in opposition to purely hereditary rights. It lays special stress on the organs of public opinion, and has an optimistic belief in the power of reason and rational discussion in political life.

THE RISE OF LIBERAL PARTIES

Even Russia could not escape the influence of these ideas, which were potent in bringing about the liberation of the serfs in 1863, and the encouragement of self-government in the *mir*. In Greece a liberal constitution was promulgated as early as 1844. Austria, after the darkness of reaction which followed the revolution of 1848, adopted a liberal constitution in 1861, and totally reorganized her government in 1867. The Italian monarchy and the house of Savoy have been animated with liberal principles from the first. Although in France all political life was stifled during the earlier years of the Empire, still later in the sixties, especially just before the Franco-Prussian War, a liberal policy had again been adopted. The nationalists of Germany, like Bismarck, the statesman, and Treitschke, the historian, always insisted that liberal government was impossible as long as the many particularistic states of Germany were suffered to continue, and that for the establishment of a liberal government national unity was essential. Bismarck, however, placed nationalism first, and when, as in his struggle with the parliament in the sixties, its needs conflicted with liberal principles, the latter had to give way.

England was during this period the country of liberalism *par excellence*. Having established her national existence and unity centuries before, she could concentrate her whole attention on the rational ordering of her domestic affairs, and the serene reign of liberalism, of which John Bright and Gladstone are the leading spirits, was not obscured for a long time by any irruptions of nationalist propaganda. The thought of the age was given to structural reform, to extension of the

suffrage, disestablishment, change of the constitutional relations between Ireland and England, and a reformation of the House of Lords.

THE NEW POLICY OF EXPANSION

During this whole period, in England as well as on the continent, colonies were undervalued. So intense was the struggle for the recognition of nationalism on the continent, so deeply were the English statesmen interested in questions of domestic polity and liberal reform, that no attention and energy remained to be expended on distant possessions. The liberal idea of self-government postulated that colonies should be made independent as soon as possible. The example of the United States seemed to indicate that this would be the natural course of development. The chief duty of the mother country was therefore to prepare her dependencies for the inevitable separation, and not to forfeit their good graces by a harsh and imperious dominion. Where trade was universally free, where men were animated by the peaceful sentiments of an industrial age, political empire seemed of little importance. All the great leaders of the liberal party up to the seventies discouraged expenditure for the colonies, and seemed to regard the impending separation as a matter of course; while even Disraeli spoke of the colonies as a mere burden, as "a millstone around our neck."

With the seventies a great change began to come over the political world. The national element in politics, now fully recognized and established in power, superseded the older liberalism. Structural ideas of politics grew uninteresting and unimportant. Effort and attention were concentrated on the development of national force without and within, and on the solution of social questions by legislation. Men no longer asked how the government was to be composed, but how was it to be used for the accomplishment of the various national purposes. As a source of national strength, attention was soon directed to colonies. Great Britain recognized their value, and the continental nations looked longingly and jealously at her magnificent empire. There began a race for territorial acquisition which seems to have come to a climax in our own day. The accompanying table will show how rapidly the imperial domains have expanded in the last thirty years: —

AREA IN SQUARE MILES OF THE EXTRA-EUROPEAN POSSESSIONS OF EUROPEAN POWERS

Name of Country	Year 1765	Year 1800	Year 1850	Year 1870	Year 1900
Great Britain .	1,510,329	1,042,595	4,265,853	7,906,261	12,151,000
France	1,056,726	1,056,726	698,905	784,125	3,638,755
Germany . . .	. . .	. . .	. . .	. . .	1,023,840
Russia	5,018,127	5,018,127	5,106,724	5,895,028	6,438,682

AREA OF THE UNITED STATES AND POSSESSIONS

Year 1800	Year 1850	Year 1870	Year 1900
815,244	3,057,407	3,602,990	3,768,521

The purpose of British colonial policy is not merely to acquire new territory, but to bind together the different parts of the empire by the firmest ties, both physical and ideal. Thus a vast railroad is planned from Cairo to India as an industrial backbone to the British empire in Africa and Asia, and the integrity of this connection was one of the prime motives that led to the recent Boer War. In other parts of the world, — in Canada and Australia, — the bonds of racial affinity are used for purposes of imperial federation. France has been animated with a feverish desire to accumulate territory in order to conceal her inner decay by the outward splendor and extent of her possessions. Germany, on the other hand, makes imperialism the agent of the expansion of her commerce, seeking chiefly for *points d'appui* which will assure for her the safety of trade routes.

Russia and the United States show a strange parallel of development. Up to very recent times they acquired new territories for their expanding population. They conquered nature, and from icy Siberia and the plains that stretch towards the Rocky Mountains they brought forth wealth and created well-being for millions. Now their manner of expansion has changed. The United States has come into possession of territory which can never be permanently settled by her citizens, while the empire of the north seems desirous to change her ancient character as conqueror over the forces of nature to that of conqueror of men.

It is not here suitable to enter more fully into the consequences to politics and civilization of these later developments. To many they contain the foreboding of a great struggle for world supremacy. But it must be said that so far the idea of world-empire cannot be considered a part of practical politics. The great powers are at present struggling not for supremacy, but for their fair share in the wealth and territory of the globe, in the influence that moulds the destiny of humanity.

Just now, however, at the meeting of two centuries, in the Orient there looms up with portentous significance the problem of China, and it may perhaps be said without exaggeration that the fate of mankind is closely interwoven with that of the Chinese empire at the present time. Should any one power gain the absolute ascendency in the far Orient, which on account of its resources and the aptitudes of its inhabitants is bound to become the centre of industry for the future, such an outcome would be fraught with the gravest dangers for humanity. The balance which enables several nations to develop their individuality side by side would be destroyed, and we should be brought one long step nearer to the condition of world-uniformity where all national characteristics are suppressed, or become indistinguishable in a common type. But we need not deal with these possibilities. So far the temper among the nations, though they are engaged in a fierce competition, is still one of mutual respect and forbearance, and there certainly is work for all the civilized powers in the regeneration of the oldest parts of the world and the civilization of its barbarous regions.

APPRAISALS OF NEW BOOKS

[An effort is made in these appraisals to give the reader the best practical guide in forming a judgment of new books that can be made while they are new. These descriptions and judgments are made after a thorough reading of the books, in some cases by two persons.]

FICTION

TOMMY AND GRIZEL. By J. M. Barrie. Illustrated by Bernard Partridge. 509 pp. $1.50. (Scribner.) A novel to be liked, or resented, as you will, but not to be ignored. When "Sentimental Tommy" closed with two remarkable children just entering upon maturity, this sequel was foreshadowed. The scenes are in London and in Thrums; but the most critical incident happens on the Continent. The pith of it is the interior life of emotion in two characters, — a woman with the straightforward, independent spirit of a man, but with a genius for loving, and a chameleon-like man. This emotional relationship implies tragedy. But sweeter tragedy has seldom been written. Mr. Barrie's satisfying style and delicate humor throw rosy gleams even in the darkest places of the story.

ELEANOR. By Mrs. Humphry Ward. Frontispiece by Albert Sterner. 627 pp. $1.50. (Harper.) Mrs. Ward's best book, not only for its style, but because it deals with simple human emotions at last (in spite of the insufferable cad in it) rather than with a man's theological life, or a woman's philanthropic ambitions. The chief characters are an over-cultivated, restless Englishman, the high-bred Eleanor, his cousin, a simple, strong American girl — all modern and all unusual. Mrs. Ward goes straight back to human nature under the artificiality called "culture." It is a story of love and jealousy and of envy, and finally of "purifying" affection. The American girl is one of the best portraits of our countrywoman in fiction. The background is modern Italy, torn between Church and State. As in "Helbeck of Bannisdale," the author's attitude is one of well-bred, highly intelligent hostility to Roman Catholicism.

LORD JIM. By Joseph Conrad. 392 pp. $1.50. (Doubleday, Page.) A remarkable study of a man (made with all Mr. Conrad's subtlety), brave to recklessness as a rule, strong, lovable, full of a sense of duty, but with some hidden quicksand of cowardice, which at two great crises of his life engulfs him. It is told with remarkable literary art, and with a feeling for the romance of the unknown islands of Malaysia, which wraps it in a veil of mystery and illusion.

THE LAST REFUGE. By Henry B. Fuller. 284 pp. $1.50. (Houghton, Mifflin.) The longing of men for perfect happiness is set forth in a semi-allegorical form. The characters are shadowy, and the interest of the story is irregular; but its charm is in the author's loving description of Roman and Sicilian scenery. It is a return to the manner of the author's first book, "The Chevalier of Pensieri-Vani."

ON THE WING OF OCCASIONS. By Joel Chandler

Harris. 310 pp. $1.50. (Doubleday, Page.) The implied nonchalance of the title gives little hint of the solidity of these five Southern stories of the Civil War. In the longest one, "The Kidnapping of President Lincoln," there is a congenial portrait of Lincoln, humorous, earnest, pathetic. In these stories Mr. Harris adds a new character to his creations — Mr. Billy Sanders, a humorous, shrewd, rural Georgian philosopher. Well told, clear, and strong.

EBEN HOLDEN. By Irving Bacheller. 432 pp. $1.50. (Lothrop.) Of a sort with "David Harum," with an originality and freshness of its own. A story of simple folk, pioneer farmers of northern New York long before the war. The hero is a type, now fast disappearing, who knew the forests and simple country life, and had a mellow knowledge of human nature. A wholesome book of a genuine human quality.

IN THE PALACE OF THE KING. By F. Marion Crawford. Illustrated. 367 pp. $1.50. (Macmillan.) The pitch of enchantment is reached in this tale of one night's happenings in the palace of King Philip II. of Spain; full of the old-fashioned mystery, murder, love, intrigue; everybody except the villain lives happily ever after. The book opens the door for a complete escape into romance.

DR. NORTH AND HIS FRIENDS. By Dr. Weir Mitchell. 499 pp. $1.50. (Century.) A kind of informal autobiography with the atmosphere of the salon, in which clever, well-bred people, clearly Dr. Mitchell's friends, meet and talk about everything in the universe in the nonchalant, brilliant, somewhat exasperating modern fashion. There is a love story and a slight plot, but it is hardly a novel. It is a series of bright conversations somewhat too anecdotal and too obviously clever to rest the reader. It pricks him often, as if to remind him that he is in a remarkably clever company.

THE HOSTS OF THE LORD. By Flora Annie Steel. 344 pp. $1.50. (Macmillan.) A novel of India, as the author's other stories are, but this time India of to-day. It blends realistic scenes and characters with a religious idealism. Certain persons in this book have their own little private pathways to holiness, and a sensitiveness to the Unseen delicately envelops the tale in the hues of spiritual romance.

ALICE OF OLD VINCENNES. By Maurice Thompson. Illustrated by F. C. Yohn. 419 pp. $1.50. (Bowen-Merrill.) A historical romance, laid in and near the Indiana town of Vincennes during the campaign of George Rogers Clark in the American Revolution. The characters all love and fight mightily; a cheerful book of action, of little literary art and no permanent value, but a rattling story for a passing day.

THE WORLDLINGS. By Leonard Merrick. 328 pp. $1.50. (Doubleday, Page.) A disagreeable and sordid subject. Mr. Merrick is a craftsman of no little skill, but his art is hardly great enough to carry a trite and grimy plot — apparently modelled on the Ticheborne Case.

A PRISONER IN BUFF. By Everett T. Tomlinson. Illustrated. 267 pp. $1.25. (The Griffith & Rowland Press.) A story of the American Revolution for young readers. The scenes are in New York, in Philadelphia, and on Long Island; animated and straightforward, worthy of the other work of the author, who has won great success in this useful field.

THE EAGLE'S HEART. By Hamlin Garland. 369 pp. $1.50. (Appleton.) An exciting succession of frontier adventures on the plains of the West; with the atmosphere of primitive outdoor living; a clear character sketch, and a pleasant love story.

DEVIL TALES. By Virginia Frazer Boyle. Illustrated by A. B. Frost. 211 pp. $1.50. (Harpers.) Clever short stories of the superstitions of old Southern plantations, true to the subject and straight out of life.

CUNNING MURRELL. By Arthur Morrison. 288 pp. $1.50. (Doubleday, Page.) Mr. Morrison has (let us thank him) forsaken his depressing slums. Cunning Murrell lived in a London suburb fifty years ago, when witchcraft was still a thing of daily life; and this wise man and witch-finder is the centre of a tale, inoffensive and mildly entertaining.

THE LANE THAT HAD NO TURNING. By Gilbert Parker. 359 pp. $1.50. (Doubleday, Page.) Twenty-six short stories, chiefly of the French-Canadian village of Pontiac. They have the directness of good stories with a romantic tinge, and a keen use of the religious side of these plain people's character. Several of them are sharply dramatic.

A WOMAN OF YESTERDAY. By Caroline A. Mason. 300 pp. $1.50. (Doubleday, Page.) A novel of contemporaneous religious life in the United States. The devout heroine, a girl of an uncommonly strong personality, prepares herself, in great poverty and self-denial, for the life of a missionary, with the utmost zeal. The story is of her religious development as she comes to take a wider and more liberal view of the religious life; well conceived, and well executed in a reverent spirit; and an absorbing story.

THE HOUSE BEHIND THE CEDARS. By Charles W. Chesnutt. 294 pp. $1.50. (Houghton, Mifflin.) A dramatic story of the color-line in Southern

life. The heroine, an octoroon who "passes for white," almost succeeds, but her failure is one of the most tragic things in recent fiction. A well-constructed and well-written story of great directness and power.

IN HOSTILE RED. A Romance of the Monmouth Campaign. By J. A. Altsheler. 300 pp. $1.50. (Doubleday, Page.) An historical romance, the stirring action of which takes place in Philadelphia and New Jersey; full of the most daring adventure; a Revolutionary romance of great spirit.

A PRINCESS OF ARCADY. By Arthur Henry. 300 pp. $1.50. (Doubleday, Page.) A delicately-wrought, almost shadowy romance, the pleasant idyllic story being subordinate in interest to the imaginative quality and the attractive style; a welcome relief from swashbuckler fiction.

HISTORY, TRAVEL, AND BIOGRAPHY

OLIVER CROMWELL. By John Morley, M. P. Fully illustrated with carefully authenticated portraits in public and private galleries, and with reproductions of contemporaneous prints in the British Museum and the University of Oxford. (The Century Company.) 472 pp. $3.50. A noble book, briefer and more easily readable than Gardiner's great history; the best popular Cromwell yet written.

PAUL JONES, FOUNDER OF THE AMERICAN NAVY. A history. By Augustus C. Buell. 2 vols., illustrated, 661 pp. $3.00. (Scribner.) The first worthy biography of Jones; frank, spirited, well written, from original sources; an important and commendable book.

WITH BOTH ARMIES IN SOUTH AFRICA. By Richard Harding Davis. Illustrated. 237 pp. $1.50. (Scribner.) Articles from *Scribner's Magazine*, written from South Africa during the war; graphic and interesting; the best war correspondent's book from South Africa; strongly pro-Boer.

THEODORE PARKER, PREACHER AND REFORMER. By John White Chadwick. 421 pp. Portrait and index. $2.00. (Houghton, Mifflin.) An appreciative, condensed biography and appraisal, written with sympathy and enthusiasm.

THE LIFE OF HENRY GEORGE. By Henry George, Jr. 634 pp. Library edition, $2.50; popular edition, $1.50. (Doubleday, Page.) A well-proportioned and clearly written, authorized biography by the son of the subject, who was for many years the confidential companion of his father. A satisfactory piece of work.

THE MONITOR AND THE NAVY UNDER STEAM. By Frank M. Bennett, Lieutenant, U. S. N. 369 pp. $1.50. (Houghton, Mifflin.) A popular book from an engineer's point of view, by the author of a larger and technical history of the navy; it traces the changes made by steam and steel in marine engineering, and the evolution of the battleship, with a brief naval history from the introduction of steam to the present; with many illustrations, and an index; the best brief and general book on the subject, but with rather too much emphasis on the machine, and too little on the man.

THE BOERS IN WAR. By Howard C. Hillegas. Illustrated. 300 pp. $1.50. (Appleton.) The army, the country, and the people of the Transvaal as they were before the British occupation of Pretoria; pro-Boer in its sympathies; clearly written.

THE STORY OF THE SOLDIER. By Brevet Brigadier-General George A. Forsyth, U. S. A. (retired) (in the Story of the West Series). 389 pp. $1.50. (Appleton.) A short history, by a general officer of wide experience, of the regular army from its inception to 1876, with special reference to its service against the Indian tribes of the West; a spirited general narrative; many illustrations and a good index.

A CENTURY OF AMERICAN DIPLOMACY. By John W. Foster, ex-Secretary of State. 497 pp. $3.50. (Houghton, Mifflin.) A course of university lectures. Period: The Revolution to Grant's presidency, with the Monroe Doctrine to date; by an author of wide diplomatic experience. Elementary; clear in statement; a good outline, not requiring previous knowledge.

THE AMERICAN SLAVE TRADE. An Account of Its Origin, Growth, and Suppression. By John R. Spears. Illustrated by Walter Appleton Clark. 232 pp. $2.50. (Scribner.) A side product of the author's history of our navy; a popular book, historical and descriptive, chiefly descriptive; as picturesque as it is gruesome. Parts of the book appeared in *Scribner's Magazine*.

MEMOIRS OF COUNTESS POTOCKA. Edited by Casimir Stryienski. Translated by Lionel Strachey. 253 pp. $3.50. (Doubleday, Page.) The Countess tells with naïveté and charm stories of many famous personages, Polish, French, and Russian, at the beginning of the century. But perhaps her most successful anecdote is autobiographical, relating how after the usual *mariage de convenance* she tried to pique her husband into showing more affection by writing a love-letter to herself.

THOMAS JEFFERSON: HIS LIFE AND WRITINGS. By S. E. Forman. 476 pp. $3. (Bowen-Merrill.) A series of selections from the state papers and private correspondence of Jefferson, arranged in alphabetical order and prefaced by a brief biography. Useful for easy reference.

THE ROSSETTIS: DANTE GABRIEL AND CHRISTINA. By Elizabeth Luther Cary. With 27 illustrations in photogravure and some other illustrations. 310 pp. $3.75. (Putnam.) Out of twelve chapters Rossetti receives ten, his sister two. An interpretative criticism. Original, and pleasantly written; and it presents the subject from a somewhat new angle.

THE UNITED STATES IN THE ORIENT. By Charles A. Conant. 237 pp. $1.25. (Houghton, Mifflin.) Essays from various periodicals touching economic aspects of our relations with the Far East. The argument is that since our productive greatly exceeds our consumptive capacity, only by securing and maintaining adequate markets abroad can we find an outlet for our over-product and for our capital. Thoughtful and clear.

A WOMAN TENDERFOOT. By Grace Gallatin Seton-Thompson. Illustrated by Ernest Seton-Thompson, F. D. Ashe, and from sketches and photographs. 361 pp. $2.00. (Doubleday, Page.) This volume presents the woman of to-day at perhaps her greatest distance from her sisters of former generations. With her husband (artist, author, and friend of all the animal world) she made many adventurous trips through the Rockies; and she has told her adventures and set forth her experiences and made many practical suggestions for those who would follow her example; interesting, in many places thrilling; a well-bred style.

THROUGH THE FIRST ANTARCTIC NIGHT. A Narrative of the Voyage of the *Belgica* among Newly Discovered Lands and over an Unknown Sea about the South Pole. With four colored plates, and over one hundred black and white illustrations; appendix of scientific results. 478 pp. $5.00. (Doubleday, Page.) A chronicle of the *Belgica* Expedition of 1898–1899, important as the first addition made in our time to Antarctic literature. The *Belgica* party gathered a mass of entirely new material, and the book has the interest of scientific discovery as well as of adventures and perils, a good account of which plentifully besprinkle its pages.

THE SALT-BOX HOUSE. Eighteenth-century life in a New England hill town. By Jane de Forest Shelton. 302 pp. $1.50. (Baker & Taylor.) A pleasant record of a well-to-do family's home-life in Stratford, Connecticut; of historical value as an explanation of obsolete customs, house furnishings, pleasures, and the like; conveying a last-century atmosphere, in an interesting way.

ARABIA: THE CRADLE OF ISLAM. Studies in the Geography, People, and Politics of the Peninsula, with an Account of Islam and Mission-work. By Rev. S. M. Zwemer, F.R.G.S., with an introduction by Rev. James S. Dennis, D.D. 434 pp. $2.00. (Revell.) Written to call attention to Arabia and the need of mission-work for the Arabs. A description of the peninsula and of its people, with maps; from a missionary point of view.

A LIFE OF FRANCIS PARKMAN. By Charles Haight Farnham. 394 pp. $2.50. (Little, Brown.) Departing from a strict biographical plan, the author has written a biographical introduction, then a study of his subject in three parts — Parkman's preparation, Parkman as seen in his works, and his moral growth. An important book and the authorized life, written with all material given by the family and the friends of the historian.

HISTORIC TOWNS OF THE SOUTHERN STATES. Edited by Lyman P. Powell. Illustrated. 604 pp. $3.50. (Putnam.) An example of industrious book-making, with its accounts, historical and descriptive, of the older Southern cities east of the Mississippi. The illustrations are profuse. Of uneven value, but of much local and some historical interest.

LITERARY FRIENDS AND ACQUAINTANCES. A Personal Retrospect of American Authorship. By W. D. Howells. Illustrated with many pictures. 288 pp. (Harper.) Eight reminiscent chapters (1860 to 1890), including "Literary Boston as I Knew It," "Oliver Wendell Holmes," "Studies in Lowell," and "The White Mr. Longfellow," which is by far the best and the most intimately appreciative portrait of Longfellow. Mr. Howells has known, and the reader meets in this book, almost every American who has had to do with literature these forty years; and it is the best book of American literary reminiscences since Fields's "Yesterdays with Authors."

NEWEST ENGLAND. Notes of a Democratic Traveller in New Zealand, with some Australian Comparisons. By Henry Demarest Lloyd. 377 pp. $2.50. (Doubleday, Page.) The best account of the extensions of democracy in Australasia, written after a study, in Australia and New Zealand, of the public ownership of railroads, the public administrator, the Australian land-tax system, old-age pensions, compulsory arbitration, and the other extensions of governmental functions; written with approval of these extensions of state activity, even with an apostolic enthusiasm; earnest, clear, interesting.

OLIVER CROMWELL. By Theodore Roosevelt. Illustrated. 260 pp. $2.00. (Scribner.) A very straightforward and vigorous book, attractive less for its literary quality than for its direct grip on the larger aspects of the subject, but its literary quality has the great merit of directness; the best American life of Cromwell, and it has a distinctly American point of view.

THE NORTH AMERICANS OF YESTERDAY. A comparative study of North American Indian Life, Customs, and Products, on the Theory of the Ethnic Unity of the Race. By Frederick S. Dellenbaugh; with more than 350 illustrations, pp. 100. (Putnam.) The work of an artist who has been a field-student of Indian life, in the service of the Bureau of Ethnology, and who writes, therefore, with a full knowledge of the vast store of information gathered by the government. The basis of this instructive book was a series of eight lectures delivered six years ago before the Lowell Institute in Boston.

POLITICAL PARTIES IN THE UNITED STATES. 1846–1861. By Jesse Macy, A.M., LL.D., Professor of Political Science in Iowa College. pp. 333. $1.25. (Macmillan.) A study of the American party-system; not a handbook, nor a book of reference, but a contribution to our political history, and an instructive contribution. It is a volume in The Citizens' Library of Economics, Politics, and Sociology, edited by Dr. Richard T. Ely.

OTHER BOOKS

THE TRUSTS. By William Miller Collier. 348 pp. $1.25. (Baker & Taylor.) A clear explanation in moderate compass of the consolidation of industry, with particular consideration of its relations to the tariff and territorial expansion. The text of various anti-trust laws is given in appendices.

EXPANSION UNDER NEW WORLD CONDITIONS. By Josiah Strong. 310 pp. $1.00. (Baker & Taylor.) The expansion of the United States as affected by present-day industrial and economical conditions; the argument is that America's future depends upon keeping open and unrestricted the markets of the Far East; a practical book after the general manner of the author's "Our Country."

SHORT STORY WRITING. A Practical Treatise on the Art of the Short Story. By Charles Raymond Barrett, Ph.B. 257 pp. $1.00. (Baker & Taylor.) A shrewd, somewhat businesslike discussion of the requirements of the short story — of subjects, plots, characters, beginnings, endings, style, and the market. Rather mechanical than artistic in tone, but of practical craft-value.

THE HISTORY OF THE DEVIL, and the Idea of Evil from the earliest times to the present day. By Dr. Paul Carus. 496 pp. 311 illustrations. $6.00. (Open Court Publishing Co.) It covers the whole history of devil worship; a book of much curious erudition; with many valuable illustrations from old German woodcuts, Oriental carvings, and other sources.

SCHOOL SANITATION AND DECORATION. A practical study of health and beauty in their relations to the Public Schools. By Severance Burrage, B.S., Professor of Sanitary Engineering in Purdue University, and Henry Turner Bailey, State Supervisor of Drawing, Massachusetts. 191 pp. $1.50. (Heath.) A practical explanation of the needs of the modern schoolroom from the standpoints of healthfulness and beauty. Illustrated with photographs of interiors and reproductions of famous works of art suitable for decoration; with specimens of artistic work done by the school children.

CHINA'S ONLY HOPE. An appeal by her greatest viceroy, Chang Chih Tung, Viceroy of Liang Hu, with endorsement by the present Emperor Kwang Su. Translated from the Chinese by the Rev. S. I. Woodbridge; introduction by Rev. Griffeth John, D.D. Illustrated. 151 pp. 75 cents. (Revell.) A remarkable book, written by an enlightened and progressive Chinaman for his own countrymen. It has been the gospel of the Chinese reform party. It discusses the moral ideals necessary to regenerate the nation, and the methods of introducing them.

PARIS OF TO-DAY. By Richard Whiteing, with pictures by André Castaigne. 249 pp. (Century Co.) Diverting and well-written magazine articles made into a holiday book, with many large pictures. Mr. Whiteing is, of course, a better writer than most makers of descriptive magazine literature.

TUSKEEGEE. Its Story and Its Work. By Max Bennett Thrasher, with an introduction by Booker T. Washington. Illustrated. 204 pp. (Small, Maynard.) Both historical and descriptive; an enthusiastic but judicious explanation of the work done at this revolutionary institution for the training of the negro, by a writer who has studied the school and travelled much with Mr. Washington throughout the South.

SHADOWINGS. By Lafcadio Hearn, Lecturer on English Literature in Imperial University, Tōkyō, Japan. 268 pp. $2.00. (Little, Brown.) Three groups of short, dreamy essays: (1) Stories from Strange Books, (2) Japanese Studies, and (3) Fantasies, most of which are interpretations of Japanese life and thought. They have the charm of the author's similar preceding books.

MORE FAMOUS HOMES OF GREAT BRITAIN, AND THEIR STORIES. Edited by H. H. Malan. Compton, Wynyates, Levens Hall, Haworth Castle, Cotehele, Longleat, Glamis, Mount Edgcumbe, Blickling Hall, Rufford Abbey, Wilton House, Inverary, Knole. Illustrated. 337 pp. $7.50. (Putnam.) A sumptuous volume, with many beautiful illustrations and an intelligent text, much of it by the owners of the houses; interesting both in detailed presentation of fine examples of English architecture and in historical description.

THE MONTH'S MOST POPULAR BOOKS

THERE are two measures of a book's popularity,—the number of copies that are sold, and the demand for it at the free public libraries. The two following lists, one obtained from the librarians of representative city libraries, and the other from leading book-dealers, show the popular books from each standpoint, and give as accurately as possible the public favor in which the book is held.

Booksellers in Boston, Philadelphia, Louisville, St. Paul, Indianapolis, San Francisco, and Detroit, and librarians in Springfield, Hartford, Buffalo, Detroit, Chicago, Minneapolis, and Cincinnati, have made reports, each including a list of the twenty books that have been most in demand. These lists have been welded into one, and composite lists made of them. The resultant lists compiled from the reports of last month, follow:—

BOOK-DEALERS' REPORTS

1. The Cardinal's Snuff Box — Harland. (Lane.)
2. Master Christian — Corelli. (Dodd, Mead.)
3. Monsieur Beaucaire — Tarkington. (McClure, Phillips.)
4. Eben Holden — Bacheller. (Lothrop.)
5. The Reign of Law — Allen. (Macmillan.)
6. Elizabeth and her German Garden — Anon. (Macmillan.)
7. The Redemption of David Corson — Goss. (Bowen-Merrill.)
8. Unleavened Bread — Grant. (Scribner.)
9. The Voice of the People — Glasgow. (Doubleday, Page.)
10. China, the Long-lived Empire — Scidmore. (Century.)
11. Tommy and Grizel — Barrie. (Scribner.)
12. The Gentleman from Indiana — Tarkington. (Doubleday, Page.)
13. Billy Baxter's Letters — Kountz. (Weldin.)
14. Wild Animals I Have Known — Seton-Thompson. (Scribner.)
15. Fables in Slang — Ade. (Stone.)
16. Weird Orient — Iliowizi. (Coates.)
17. Hard-pan — Bonner. (Century.)
18. Deacon Bradbury — Dix. (Century.)
19. The Isle of the Winds — Crockett. (Doubleday, Page.)
20. Home Folks — Riley. (Bowen-Merrill.)
21. A Friend of Cæsar — Davis. (Macmillan.)
22. Memoirs of the Countess Potocka — Strachey. (Doubleday, Page.)
23. The Penitentes — How. (Bowen-Merrill.)
24. Love Letters of a Musician — Reed. (Putnam.)
25. The Solitary Summer — Anon. (Macmillan.)
26. Bob, Son of Battle — Ollivant. (Doubleday, Page.)
27. Robert Orange — Hobbes. (Stokes.)
28. America's Economic Supremacy — Adams. (Macmillan.)
29. The Century Book of Gardening — Cook. (Doubleday, Page.)
30. The Expatriates — Bell. (Harper.)

LIBRARIANS' REPORTS

1. The Reign of Law — Allen. (Macmillan.)
2. To Have and to Hold — Johnston. (Houghton, Mifflin.)
3. Janice Meredith — Ford. (Dodd, Mead.)
4. Elizabeth and her German Garden — Anon. (Macmillan.)
5. Unleavened Bread — Grant. (Scribner.)
6. The Gentleman from Indiana — Tarkington. (Doubleday, Page.)
7. When Knighthood was in Flower — Major. (Bowen-Merrill.)
8. Richard Carvel — Churchill. (Macmillan.)
9. The Redemption of David Corson — Goss. (Bowen-Merrill.)
10. David Harum — Westcott. (Appleton.)
11. Wild Animals I Have Known — Seton-Thompson. (Scribner.)
12. Red Pottage — Cholmondely. (Harper.)
13. Eben Holden — Bacheller. (Lothrop.)
14. Phillip Winwood — Stephens. (L. C. Page.)
15. Master Christian — Corelli. (Dodd, Mead.)
16. China, the Long-lived Empire — Scidmore. (Century.)
17. The Solitary Summer — Anon. (Macmillan.)
18. Fisherman's Luck — Van Dyke. (Scribner.)
19. The Letters of R. L. Stevenson — Colvin. (Scribner.)
20. The Voice of the People — Glasgow. (Doubleday, Page.)
21. A Friend of Cæsar — Davis. (Macmillan.)
22. China in Transformation — Colquohoun. (Harper.)
23. The Browning Love Letters. (Harper.)
24. The Break-up of China — Beresford. (Harper.)
25. Life of William Morris — Mackail. (Longmans.)
26. Ben Hur — Wallace. (Harper.)
27. Red Rock — Page. (Scribner.)
28. The Honorable Peter Sterling — Ford. (Holt.)
29. In Connection with the De Willoughby Claim — Burnett. (Scribner.)
30. Sky Pilot — Connor. (Revell.)

Only eleven books are mentioned in both lists; and there is a particular demand for novels that have been dramatized, and for books dealing with China and the Eastern situation.

Five books, "The Reign of Law," "Elizabeth and her German Garden," "The Redemption of David Corson," "The Gentleman from Indiana," and "Unleavened Bread," are among the first twelve in each list. They are, therefore, probably the most widely read books of the month.

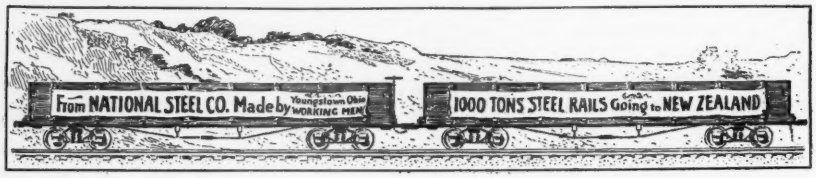
Booksellers and librarians were requested to make their reports cover a large list of books, so that they might show the popularity of other sorts of books as well as of novels. The dozen most popular books of any month are likely to be all fiction, and most of them are likely to be novels of merely transitory favor and value. But even a list of thirty contains disappointingly few books of history or biography or of literature. The librarians' list of course contains a few more than the booksellers' list — among them being "Wild Animals I Have Known," "China, the Long-lived Empire," "The Letters of Robert Louis Stevenson," "China in Transformation," "The Browning Love Letters," "The Break-up of China," and "The Life of William Morris."

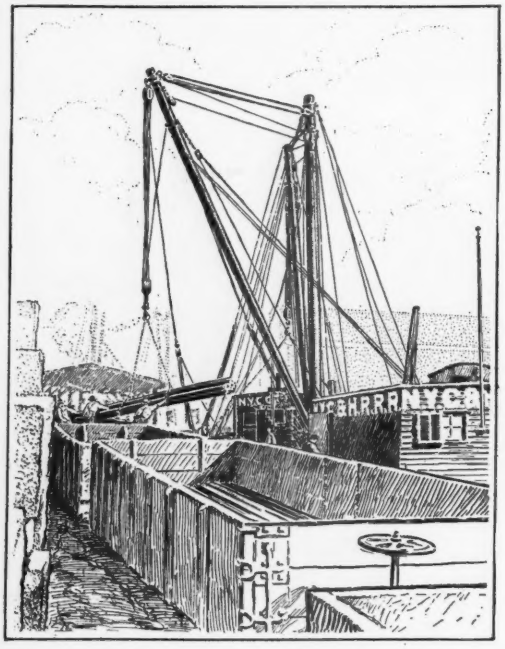
AMONG THE WORLD'S WORKERS

THE ADVANCE OF AMERICAN COMMERCE, SHIP-BUILDING, RAILWAY CONSOLIDATION, FINANCIAL INDEPENDENCE OF EUROPE — THE MOVEMENT OF PRICES — THE GROWTH OF CITIES

Steel and Copper to all Countries

MR. CARNEGIE has made a movement of vast significance to the steel trade. To avoid the freight rates from Pittsburg to the seaboard, the Carnegie Company will ship by water to Europe. In November four British steamers sailed from Conneaut Harbor, each loaded with a thousand tons of steel sent from Pittsburg on the Carnegie Company's own railroad to Lake Erie. They were loaded to fourteen feet draught, the greatest permitted by the Welland Canal. They entered the canal, each towing a barge loaded with fifteen hundred tons of wood pulp. When deep water was reached at Montreal, the route followed being by way of Port Dalhousie, on Lake Ontario, to Kingston and into the St. Lawrence, the wood pulp was loaded on the steamers, which then sailed for Liverpool.





STEEL RAILS ON THEIR WAY FROM YOUNGSTOWN, O., TO NEW ZEALAND.

This experiment is thought to presage the establishment by the Carnegie Company of a regular freight route and the building of its own ships. If successful, it is sure to be followed by most of the other great steel makers in Pennsylvania, Ohio, and the Middle West. The distance from New York to Liverpool is 3425 miles, and from Pittsburg to Liverpool by the Welland Canal 3267 miles. The all-water route will, then, compel a reduction in freight rates by the great trunk lines, and give American steel a still firmer foothold in foreign markets. It would doubtless also hasten the building of a ship canal from the lakes to the ocean along the route recommended by the Deep Water Ways Commission.

The iron and steel trade now commands an economic outlook without precedent. England and Germany are still leading us as exporters of iron and steel of certain classes, but our experience at home in adapting machinery and implements and other forms of steel products to the varied conditions of our vast territory has prepared us to adapt our products to the conditions of climate and the wants of consumers in every part of the world. Throughout the country the steel-making plants are crowded with work, and most of them are unable to fill their orders. Youngstown, Ohio, has lately made a noteworthy shipment of steel rails to New Zealand. Within the last twelve months the Carnegie Company has sent steel rails and structural material to India, Burmah, Persia, Palestine, and Madagascar. During the same period the Westinghouse interests have developed a big trade in air brakes and electrical machinery with continental Europe, Asiatic Russia, China, Japan, India, Corea, Egypt, Turkey, and Australia;

while the Pressed Steel Car Company has sent its cars to Egypt, France, Natal, Cape Colony, Japan, China, England, and Spain; and the Standard Underground Cable Company has despatched tons of its product to Patagonia, Siam, Japan, Chile, Ecuador, and the Argentine Republic.

$16,000,000 IN COPPER DIVIDENDS

The same cheering reports of growth and activity come from the several centres of the copper industry. During the first nine months of the current year the four leading copper companies of the country paid upward of $16,000,000 in dividends, and the demand for this metal for manufacturing consumption promises to continue on an enormous scale for a practically indefinite period. Part of this is due to increased consumption by American brass and copper manufacturers, but England, France, and Germany have also been heavy purchasers. Since electrical developments will undoubtedly assume greater importance throughout Europe, the foreign demand for copper promises to increase. America seems to have a ready and assured market for all the copper it can produce for years to come; and so long as legitimate consumption keeps such close pace with production, values will continue to respond to the buoyant influences of such truly magnificent trade demands as at present exist for copper.

PROSPERITY OF A COPPER COUNTY

What these things mean to the mine worker as well as to the mine owner is shown by the annual census of Houghton County, Michigan, where many of the big copper veins are. The number of men employed in the mines and mills of that county has nearly doubled in the short space of four years; and, from present indications, twenty thousand men will be employed before another half decade. In addition to the mines and mills, the smelters furnish employment to large numbers, the labor force of the railroads is twice as large as it was a few years ago, and thousands of men are employed by the various contractors. Scores of new business structures are going up in the chief towns; over a thousand new dwellings have been built during the present year, and a belt trolley line, now nearing completion, will give rapid transit between the principal mining, milling, and commercial centres of the county.

The Doubling of Our Ship-building

THE deep-water craft built in American yards in 1900, if placed end to end, would make a fleet fifteen miles long. The ship-building capacity of the country has been doubled within the past two years, and yet all the yards, with an exception or two, have a large amount of work in progress and in sight, and cannot book further orders for months to come.

Proofs that the United States is again to take first rank as a ship-building and ship-owning nation multiply on every hand. Since July, 1899, many plants long closed have been reopened, and ten companies have proposed the establishment of new plants to cost from $500,000 to $6,000,000 each. Among the plants lately established or much enlarged are that at Newport News, representing an investment of $12,000,000; the new plant at Camden, Maine, which will cost $6,000,000; the Cramp Works, and the Union Works at San Francisco; the Sparrow's Point yard, near Baltimore — started ten years ago, and recently equipped with new machinery; the adaptation of the works at Bath, Maine, to the building of steel vessels; the new yard at New London, Connecticut, where vessels of the largest class are to be constructed; and the new yard at Richmond, Virginia. In all these the equipment is of the first class, and generous use has been made of labor-saving appliances.

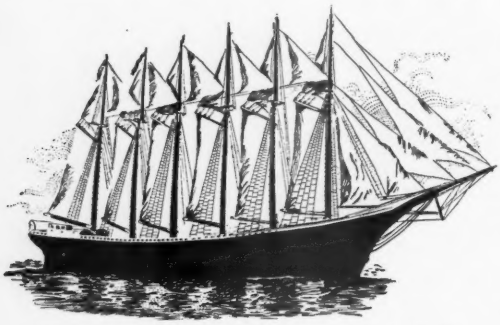
THE INCREASED SIZE OF VESSELS

Certain tendencies in this new movement show the changes effected in recent years in the commercial needs of the country. The day of the small vessel appears to have passed, and those from four

H. M. BEAN, BUILDER OF THE *GEORGE W. WELLS.*

thousand tons upward are now most in demand. The ship-builders of New England have led the way in the construction of sailing vessels of increased size; and at the yard of H. M. Bean, in Cam-

den, Maine, the finishing touches are now being given to a six-masted schooner, the first of its kind. This vessel is 330 feet in length, 48 feet beam, 22 feet depth of hold, and will carry 5500 tons of



THE *GEORGE W. WELLS*, FIRST SIX-MASTED SCHOONER EVER BUILT.

cargo. Her lower masts are each 116 feet long, and her topmasts each 58 feet in length. Wire rigging will be used exclusively, and four roomy houses are provided on deck, while the vessel will be lighted throughout with electricity and heated by steam.

Early in October a still larger six-masted schooner was launched at the yard of Percy & Small, in Bath, Maine; and that more of these mammoth craft will be built in the near future may be inferred from the fact that a vessel of large size can be handled with the same number of men as are required for one of half the tonnage, and its earning capacity is thereby materially increased.

GOVERNMENT AID TO SHIPPING

"There is now an opportunity," said Lewis Nixon, the ship-builder, to THE WORLD'S WORK, "which may not occur again in generations for us to enter with a fair show of success into a competition for foreign trade upon the ocean; but it cannot be expected that American boats can jump into this trade when good will and connections have already been established by other countries. Hence some measure of encouragement to ship-builders and owners is absolutely necessary, and should be granted without delay by Congress." Mr. Nixon continued: —

"I am a believer in removing the tariff upon the products of any well-established industry; the fact remains that this country is upon a protection basis. This being the case the only two industries of ship-building and ship-owning which are not protected should at least receive the same encouragement as other industries.

"I believe that, if the two great parties would join hand in hand in the building up of our merchant marine, just as they did in the case of our navy, the same gratifying results would be obtained in connection with the upbuilding of our foreign fleet as were obtained in connection with the rebuilding of the navy. It is not a political question at all except as it is made so by those who seek partisan capital in everything that is done. From the Democratic standpoint I believe that more has been accomplished by men who were avowedly Democrats than by men who were or are Republicans.

"On this point the student of history will find that the first President to recommend legislation providing subsidies for American shipping was James K. Polk. The first great speech ever made in Congress in favor of subsidies to American ships was delivered by William Polk, of Tennessee, brother of the President and Democratic leader of the House. The first subsidy legislation for the benefit of American ships, those of the Collins line, was passed by a Democratic majority in Congress and approved by a Democratic President. Only one of our Presidents has ever sent to Congress a message recommending a repeal of the navigation laws written by Jefferson. That President was Grant, and he withdrew the message after hearing the speech of John Kelly against such repeal.

"I cite these facts to show that legislation looking to the upbuilding of our commerce upon the sea is not, and can not, be confined to any one party. Increasing need and resolve that we shall be no longer tributary to the nations which do our carrying are sure in time to make us, despite all obstructions, the greatest ship-building and ship-owning nation. History will repeat itself, and we shall again build the ships of the world, as we did when we produced the wooden fleets which gave us our supremacy upon the ocean. But a wisely framed subsidy law will make this a matter of years instead of decades."

Increasing Railway Consolidations

LIGHT on present tendencies in railway management is afforded by Mr. Paul Morton, second vice-president of the Santa Fé system, and by Mr. Frank J. Bramhall, of the Michigan Southern Railway, who have kindly furnished brief expressions of opinion for publication in THE WORLD'S WORK. Mr. Morton writes: —

"The present trend in railway management is towards unification of ownership. The Interstate Commerce Act prevents discrimination between individuals or between communities, and prohibits pooling or combination of any kind; and this is backed up by the Sherman Anti-Trust Law. On the other hand, competition in the railway world, which is very keen, naturally breeds discrimination between individuals, as well as between communities and localities, and the only thing that will prevent it is combination or pools. The law says this shall not be, and the logical result will be that competition will continue to force consolidation in some form or another. Personally, I incline to the opinion that this is, perhaps, the best thing that can happen. However, as soon as the people find that our railroads are all owned by one body of capitalists, there will be a loud cry for government ownership, although the laws passed by Congress itself are hurrying such concentration of ownership.

"The Pacific coast is to be one of the deciding factors in the next great epoch of the railway business. Regardless of the result of the trouble in China, shipping on the Pacific Ocean is going to multiply and increase in magnitude every year, with consequent profit to our transcontinental lines. There is sure to be a great development in the Orient when American ingenuity becomes thoroughly implanted, as it is bound to do, in that section of the world."

Mr. Bramhall takes much the same view as Mr. Morton. He writes: —

"Probably the most marked tendency on the part of the railroads of the present day is that toward concentration and consolidation. This is a result of two causes: the one a natural tendency found in all commercial lines of business, in which the larger seeks to absorb the smaller. This has existed ever since the first lines were built, as illustrated by the consolidation of the three original lines from Boston to the Hudson River under the new title of the Boston & Albany, and the consolidation of the five original lines which now form the main line of the New York Central. The second and more recent stimulus in this direction is found in the decisions of the United States courts prohibiting pooling, and, indeed, any practical agreement among the different lines for the maintenance of rates. In order to avoid, therefore, demoralization of freight and passenger rates, resulting in serious loss to the roads and no real benefit to the public, it became necessary for the financial interests to combine by some form of actual consolidation. So we see the large systems of the Pennsylvania, the New York Central, the New York, New Haven & Hartford, and the Boston & Maine, constantly extending by absorption, not of competing, but of connecting lines.

"The same principle is illustrated by the western lines, but in less degree, as the scope for extension permits the building of new lines; and we see the extension of westward lines toward the Pacific coast, drawn by the strong magnet of the wonderfully increasing commerce of the Pacific Ocean. It has not been long since the Great Northern reached its terminal on Puget Sound. More recently the Santa Fé system has reached its new outlets at Sacramento and San Francisco. The western termini of the Burlington, the Northwestern, the Milwaukee & St. Paul, and other lines are constantly moving westward, and you have but to look at the map to see how inevitably all are seeking independent crossings of the Continental Divide, with ultimate termini on the shore of the Pacific."

The trend toward railway consolidation has recently had striking exemplification both in the West and in the South. In the West, the Burlington system has become the owner of the branch lines in Iowa, Missouri, and Nebraska, which it formerly held under lease, while in the South, the Georgia Railway, the Atlanta & West Point Railway, and the Western Railway of Alabama have been consolidated as the Georgia division of the Louisville and Nashville system. The latter transaction has not been formally completed, but can already be regarded as an assured fact.

The most important line of new railway recently projected will extend from Los Angeles, by way of San Bernardino, to Salt Lake City. It will cost twenty-five millions to build the line, but, by reason of the personal resources of its projectors, there will be no issue of construction bonds. Ex-Senator William A. Clark, of Montana, who some months ago purchased a controlling interest in the Los Angeles Terminal Railway, is the directing spirit in the enterprise, which will not only open to settlement and development a country rich in mineral and agricultural resources, but, by its connection at Salt Lake City with the transcontinental lines having termini there, will afford a new outlet to the Pacific. The surveys are being pushed with all possible speed, and grading and track laying will begin before the end of the present month.

The Completion of the Cascade Tunnel

THE completion of the Cascade Tunnel of the Great Northern Railroad, now nearly accomplished, marks the beginning and passing of two of the most remarkable engineering achievements of modern times.

For ten years the transcontinental trains of this road have ascended and descended the mountains of the Cascade range, carrying their freight of human lives, and during that period not a single accident has been recorded. The "Switchback" is an expensive and time-consuming method of crossing the mountains, but when the line was surveyed there was no other route feasible.

The "Switchback" is the series of zigzag ascending and descending tracks over the mountains. The approach to it is through tremendous gorges, notably Tumwater Cañon, which is about thirty-three miles this side the main barrier of the Cascades.

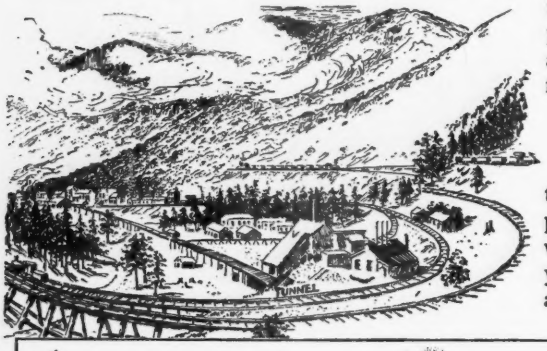
When it was known that President Hill had decided to bore through the mountain of solid granite, railroad men smiled. It was bad enough on the stockholders, they said, to push the Great Northern across hundreds of miles of barren, worthless prairie, but it would be financial suicide to carry out the project of tunnelling the Cascade range. For a year or more the undertaking was known as "Hill's folly." No comments of this nature are heard now. The terminals of the tunnel at Cascade and Wellington may now be seen by passengers while crossing on the "Switchback." This great piece of engineering is two miles and a half long. The roof will be at one place of solid granite, 5350 feet thick. The tunnel is in a straight line from the head of one cañon to that of another, with a slope of about ninety feet to the mile. The east portal is at an elevation of about 3375 feet above the sea-level, while the west portal is about 3125 feet above the same base.

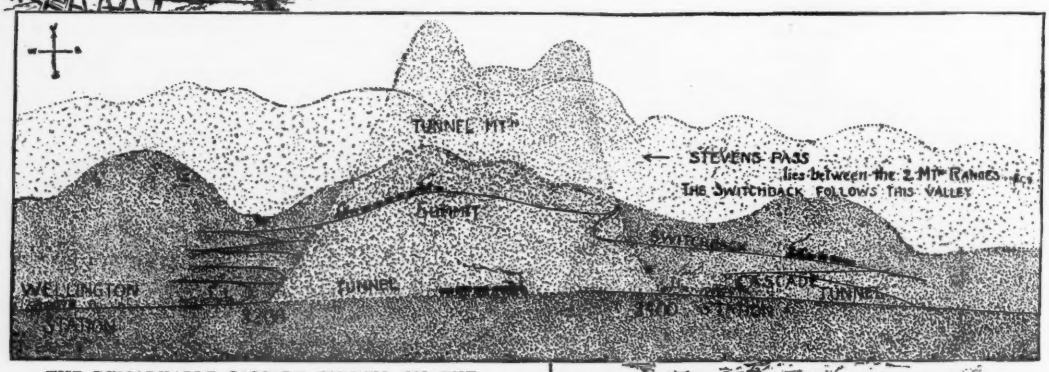
Work on the approaches to the tunnel was begun in January, 1897. An average of eight hundred men have been employed on the tunnel from the first, the forces being equally divided and working toward the centre from each side of the mountain. The two forces met on October 2, but the tunnel will not be ready for use before January 1.

Tons of dynamite have been used in blasting the granite. The dislodged rock is taken out of the tunnel on electric cars and delivered to a large crusher with a capacity of forty tons per hour, which crushes it into small fragments. These are then mixed with sand and Portland cement, taken back

into the tunnel, and used to line the inside with an imperishable wall four feet thick.

The completed tunnel is twenty-three feet high by sixteen feet wide. Huge exhaust fans, driven by electricity and a system of pipes, will keep the air in it always pure. Electric motors will be used in hauling freight and passenger trains through it, so that no annoyance will result from the smoke and fumes of the ordinary coal-burning engines. A double row of electric lights will light this immense white tube, which, as far as human foresight can predict, will endure for countless ages, a monument to the daring ingenuity of James J. Hill.





THE REMARKABLE CASCADE TUNNEL ON THE GREAT NORTHERN RAILROAD.

Paying our Debt to Europe

THE closing months of 1900 have emphasized the fact that the United States is fast nearing the day when she will no longer be numbered among the debtor nations. The enormous debt to Europe, incurred by American railway builders, and the attendant development of wide-reaching areas of mineral, agricultural, and timber land, is now being rapidly diminished, and promises soon to be completely wiped out. America's natural wealth and the skill and ingenuity of our people, together with the normal profits of invested capital, have finally turned the scale, and for months Europe has been surrendering our stocks and bonds, and sending over receipts in full for the obligations contracted in past years. More than that, she is now executing mortgages to America that call for semi-annual tribute in the future. These mortgages take the shape of foreign government bonds, which are welcomed with increasing favor by American purchasers, and sell at higher prices in our financial centres than they command from the subjects of the sovereigns who issued them. More of these foreign loans are sure to be floated in America, and proofs multiply that the tendency of the present and the future is for the Old World to look for financial succor to the New.

GREAT RAILWAY EARNINGS

Another satisfactory feature of the financial situation is supplied by the annual reports lately made public of the most important Western railways which have been reorganized within the past five years. These include the Sante Fé, Union Pacific, and Northern Pacific systems. The Sante Fé for the ended fiscal year shows net earnings of a little less than nineteen millions, or nearly double those of 1899, assuring, after the payment of interest and other charges, a surplus equal to the full five per cent upon its preferred stock, and to four per cent upon its common stock. The net surplus of the Union Pacific, after due provision for all operating expenses and fixed charges, amounts to upward of thirteen millions — a sum not only sufficient to pay the full four per cent dividend upon its preferred

stock, but also providing a balance amounting to nine per cent upon its common stock. The gross earnings of the Northern Pacific amounted to thirty millions. Out of this it paid three millions upon its preferred and a somewhat smaller sum upon its common stock, devoting three-fourths of a remaining surplus of four millions to additions and betterments for existing lines. When it is remembered that all three of these systems were bankrupt only a few years ago, the results outlined above give cause for wonder and admiration. Through efficiency and integrity of management conditions have been obtained which promise to endure for a long period, and the stocks of each of these companies now possess a genuine attraction for people seeking investments that will yield fair yet certain returns. Indeed, it is not too much to say that future dividends on their preferred shares are as sure as anything under human direction can be, while fair, even if less assured, returns seem to be promised upon their common stocks.

The instances just cited are not exceptional ones. Millions of dollars' worth of shares which only a few years ago represented foreclosed and bankrupt properties are at present paying dividends, while from two-thirds of the railway mileage of the country being in the hands of receivers, very few properties, and those of secondary importance, are now in such condition. In October, 1896, the total of dividend payments on railroad and other shares familiar to the layman was fifteen millions. In the same month of the current year dividends aggregated thirty millions — exactly double. These figures, however, deal with but a single phase of the business prosperity and expansion achieved within the period to which they apply. In October, 1896, stocks of a par value of $772,000,000 paid dividends. In the same month of 1900 the par value of dividend-paying shares was $1,662,000,000, an increase of $850,000,000, which means that the capital invested in railroad and other securities yielding profits to their holders has more than doubled in four years. Within the same period the par value of bonds paying interest has swelled by $390,000,000, and careful observers predict that the total of interest and dividend disbursements in 1900 will be $200,000,000 in excess of that of 1896. It is a great exhibit which this record of expansion of interest and dividends makes.

THE INCREASING SUPPLY OF GOLD

One other feature of the financial situation merits attention: Recent heavy engagements of gold from Europe, which the Bank of England sought in vain to discourage, have been concurrent with large receipts at Pacific coast ports from Australia, Alaska, and the Klondike, and a continuous and increased domestic production of the metal. By home productions and importations the country's gold supply will be increased by fully $100,000,000 in this calendar year.

American Promotion of Rapid Transit in London

CONSTRUCTION has already been begun of the underground railway, seven miles long, running from Charing Cross (in London) to North London, — with American money, by American energy, under the charter bought by Mr. Yerkes of Chicago, — and it is expected that fares will be collected before the end of 1902. British engineers and contractors have been selected for the task, but they will work on American plans and with American material. Among the innovations will be express trains and baggage-cars, while motor-cars will be used instead of electric locomotives.

The Charing Cross line is only a modest beginning of the comprehensive scheme of rapid transit which Mr. Yerkes has in mind, for it is his purpose to follow in this new field the same plans and methods which have developed the outlying districts of Chicago as those of no other city were ever developed.

"We shall build the line," said he to a representative of THE WORLD'S WORK, "from Charing Cross almost due north to Hampstead, with connections to Euston, Paddington, and perhaps Victoria. There will also be a connecting station with the new Central London Railway. But in executing this work we shall only provide what we intend to be the parent stem of a system of rapid trade which will bring a large territory north of London within residential distance of city workers of all classes. This we shall accomplish by making our northern terminus the meeting-point of surface electric lines radiating fan-like in all directions. The plan was the essential feature and the most successful one of the system by means of which we opened up the country for forty miles around Chicago. Land in the suburbs of that city which before the coming of the trolley line sold by the acre, was divided up into house-lots and sold by the foot as soon as the electric car appeared. But the trolley has done much more than enhance the value of Chicago real estate. It is banishing tenement life from that city, and so improving its health that its death rate is now the lowest, size considered, in the world. Rapid transit planned on the same lines will do for London or for any other congested city all that it has done for Chicago. We shall confine our efforts to the north of London, one enterprise of magnitude being sufficient for the hour; but if we succeed, similar facilities will be forthcoming for other sections of the city."

American energy and dollars, it seems, are to provide the English capital with another enterprise of far-reaching consequence and importance. This is no more nor less than a ship canal from Southampton to London. A route has been surveyed by competent engineers, who report that such a waterway is feasible and can be built for a sum that will assure handsome returns to its American projectors. The whole matter has been placed in the

hands of the same firm of contractors which is to build Mr. Yerkes's underground railway, and, though grave legal and other difficulties remain to be overcome, promises to take definite shape at an early date. The revolutionary changes that would be wrought by a ship canal enabling the largest ocean liners to land their passengers in the heart of London many hours earlier than by any other route can be easily inferred from the growing popularity of the smaller steamship lines now sailing to and from London by the slow and difficult way of the Thames.

Our Growing Trade with Australia

ONE of the most significant and hopeful features of our foreign trade is the wonderful gain that we are making in Australian markets. Our exports to Australia are increasing much more rapidly than those from Germany, despite the heavy subsidy paid by the Kaiser's government during the past seven years to maintain cheap and regular steamship communication and low rates to the British colonies in the South Pacific. Although efforts to extend the sale of American goods during the same period were entirely of individual enterprise, by 1899 American exports had increased to a little less than $20,000,000, while those from Germany were only a trifle more than $4,000,000. During the fiscal year 1900 our exports to this market reached the splendid total of $27,000,000.

The growth of much of this trade from the Atlantic States has been due to the energy of the New York exporting house of Flint, Eddy & Co., who established an Australian department five years ago, with Mr. H. C. Payne in charge. A little later the same firm put in operation a line of direct steamers from New York to the several Australian ports. Previously all merchandise from this country either went by way of San Francisco or was transshipped at Liverpool. At first there was barely freight enough for one steamer a month, but now one sails every ten days with full cargoes of from 4000 to 8000 tons of American goods.

"We are besting the English merchant on his own grounds," said Mr. Payne to THE WORLD'S WORK, and he continued: —

"We offer lower prices, and our goods give better satisfaction. We have at last convinced our manufacturers of the wisdom of making special brands for particular markets, and in every line of trade, save fine dress goods and fancy articles, we can compete successfully with Great Britain in her own colonies. Indeed, we now monopolize the market in many things which two years ago went entirely from England. One of these is corrugated iron for roofing purposes, of which an immense quantity is used in Australia. Until last year nearly every pound was bought in England, but now we are sending it by the shipload. A few weeks ago we sent a thousand tons of bar iron to Australia — our first shipment. Great quantities of bar iron are now shipped from England, but, though we have to carry it 3000 miles further to reach Sydney and Melbourne, you will see us wrest this trade from England in a year or two. American electrical supplies, carriages, buggies, farming implements, carpenters' tools and other cutlery, print paper, tobacco, lamps, china, glassware, rubber goods, plated ware, furniture, and a hundred other things, are now shipped to Australia from this country.

"No foreign market is using as much American hardware as Australia. Every outgoing steamer carries thousands of dollars' worth of hardware specialties, and leading import firms at Sydney and Melbourne have their representatives in this market, who buy hardware almost exclusively in large quantities."

BOOTS AND SHOES TO FOREIGN MARKETS

Australia has become the best market also for American boots and shoes, to which, in a year, $750,000 worth are sent. England follows, with purchases last year of $700,000; then the West Indies, with $600,000; Canada, with $400,000; and Mexico, with $300,000. By the substitution of machine-made for hand-made shoes, by the economies introduced in the processes of tanning, and by the introduction of improved mechanical processes, American manufacturers now command unrivalled facilities for supplying not only the people of this country, but those of other countries, with boots and shoes at low prices. Thanks to these conditions, American exports of these goods the past twelve months have been the largest in the history of the trade.

The superintendent of sales of the George E. Keith Company, of Boston, one of the largest concerns of its kind exporting its own goods, recently said to a representative of THE WORLD'S WORK that his company's foreign sales during the first nine months of the current year had exceeded by nearly $1,000,000 those of the same period in 1899. Much of this increase was due to newly created markets in the Philippines, the treaty ports of China, the Straits Settlements, and India. The English, he said, prefer our shoes to any others, and many American concerns now maintain retail stores in London and other British cities. Heretofore American boots and shoes have been sold almost exclusively in countries in which English is the language spoken, or in which business is carried on in English; but now they are finding buyers in every part of the world. It may be noted as, perhaps, the most gratifying feature of our growing foreign trade in boots and shoes, that those shipped abroad give such satisfaction that a market once attained is not thereafter lost.

The Projected Pacific Cable

THE establishment of a trans-Pacific submarine cable, often considered by Congress during the last thirty years, promises to take tangible shape during the next twelve months. The

greatest obstacle in the past to such an enterprise has been a scarcity of mid-ocean resting-places, no single government controlling a sufficient number of suitable landing-places to make it practicable, in view of the belief that the distance from which messages could be sent and cables controlled was limited. The war with Spain and its sequel have removed this objection, and the government survey of the route which would connect California and Asia, by the Hawaiian Islands, Guam, and the Philipp nes, has revealed no obstacle which may not be avoided in laying the cable.

No section of a cable laid along this route would equal in length that now in operation between France and the United States. The latter line is 3250 miles long, while the greatest distance from land to land on the proposed Pacific route would be from San Francisco to Hawaii, 2089 miles, that from Hawaii to Wake Island being 2040 miles. It is estimated that the building of such a cable would involve an expenditure of twenty millions, while a branch line from Guam to Japan would cost an additional four millions.

For this reason the selection of a northerly route finds numerous and earnest advocates. One has already been surveyed, though not by the government, and it has been found that it divides itself into six lines of about 800 miles each. The stations proposed on this route are Sitka, the capital of Alaska; Kadiak Island, the farthest station north; Dutch Harbor, the great central port of the North Pacific; Attu, the western end of North America; the Japanese-Russian border; and northern Japan, whence many overland wires, as well as cables, run to within 200 miles of the Philippines. The longest of these links falls within 900 miles, and Chandler Hale, one of the advocates of the northerly route, points out that a cable line by it would cost only six millions. Another of its decided advantages is that it avoids great depths, the average not exceeding a thousand fathoms. Repairs could be made at all seasons of the year, and a single spare cable of 850 miles would replace any link, while repair ships could find safe harbors within 120 miles of any break. Moreover, it would lie in latitude all lower than that of Aberdeen, Scotland, and in climates far superior to that of the North Atlantic.

Whichever route may be finally selected, government aid of private enterprise is pretty sure to take the shape of a liberal annual subsidy, since it is stated on reliable authority that for a yearly guarantee of $400,000 for the transmission of government messages responsible individuals and companies stand ready to lay and operate a cable following either of the proposed routes. No better way could be found for the discharge of a great and important task. A cable is essentially a commercial bond, and will be of far greater value to the world and to its owners if conducted as an individual venture than if undertaken wholly as a government work.

The Movement of Prices

By John R. Commons

FORMERLY, when agriculture was the absorbing industry, economists and statesmen looked upon the price of wheat as an index to business prosperity and adversity. To-day, when the predominance of agriculture is contested by manufactures, mining, building, and transportation, and when agriculture itself is split into a dozen specialties, we must look to the prices of *all* staple products as our index to prosperity. But the ordinary man cannot do this. The staples are too many. Only the expert, whose livelihood requires it, can "keep his head" in the maze of forty or more fluctuating prices. The ordinary man must be furnished with an *average* or a *total* of some sort. But an average or a total of the prices of forty or more commodities is an absurdity. Who would think of figuring out the average price of a bushel of wheat at 60 cents, a ton of coal at $4.00, a thousand feet of lumber at $20.00, and a yard of print cloth at 3 cents? What would be the name of the article to which the average price pertained?

If there is not an average price, there is another device which we can adopt. All of these prices can be reduced to a common base. We can take the price of each at a given date — say January, 1860 — or the average price of each for a given period — say the years 1879 to 1889, as is done in these diagrams — and can give to this base price for each article the common value of 100. The prices at all the other dates would then be stated in terms of percentages, or "index numbers," of this base price. These percentages can then be averaged, and we have the general index number for the date selected.

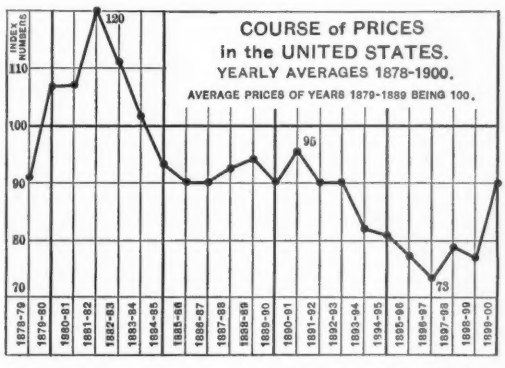


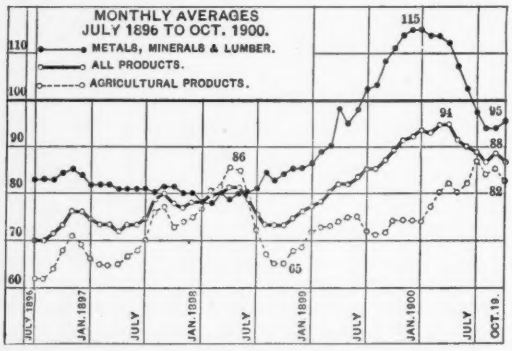
Diagram I. shows the index number thus derived for 22 years and 66 staple products of the United

States. This is as accurate a measure of the trend of business through booms, panics, and depressions, as can be devised. Each of the 66 articles is given weight according to its importance.

Notice the swift rise of prices from 1879 to 1882, in a period of prosperity never before equalled. The index number rises from 91 to 120, a rise of 32%. Notice the panic and depression that followed, in which the entire gain was lost. Then came faltering recovery, but in 1893 another drop and a depression almost worse than anything known. The lowest point was 73 — in 1896–7 — a fall of nearly 20% in four years, and of 40% since 1881–2.

Here again comes a brilliant recovery, rivalling that of 1879–82. The index number for the crop year ending June, 1900, is 90, a rise of 23%, and a complete restoration of the level of 1885 and 1892.

Diagram II. gives certain details of this prosperity by months, and a comparison between two of the



five groups of products which enter into the general average. These monthly averages of Diagram II. are those from which the yearly averages of Diagram I. are computed for the four years, July, 1896, to January, 1900. The index number in July and August, 1896, was 70, the lowest point of the depression. Notice the hesitating recovery which began in September. Then notice the decided bulge of August, 1897, to May, 1898, when the index number reached 81. The causes of this bulge appear quite plain if we notice the extraordinary rise of agricultural products (corn, oats, wheat, rye, barley, rice, potatoes, beans, sugar, hay, flaxseed, wool, and cotton). A wheat shortage in 1897 in Europe, Argentina, Australia, and India, and an enormous crop in America, had two effects. It sent the index number of agriculture up to 86, and it brought gold from Europe. A remarkable shifting of interests followed. Agriculture tumbled to 65 by reason of the large crop of 1898. During all this time the metals and minerals (iron, silver, copper, lead, zinc, quicksilver, tin, coal, lumber, petroleum, phosphate rock) had not only not risen, but had actually fallen (see Diagram II.). But when they began to feel the farmers' gold, they took their turn at buoyancy, and jumped in 16 months from 80 to 115, a rise of nearly 44%. Pig iron rose 135%.

The general index number touched its highest point in March and April, 1900. Since then the groups have come closer together. The war in the Transvaal checked the gold supply. Prices could not be sustained. Metals and minerals dropped to 94. Pig iron lost 36%. But short crops of cotton and wheat are again helping agriculture. The general index number for October 19 is 87, a drop of 7.4% since April. But agriculture is close at hand, namely 83, and metals and minerals are at 95. The presidential election is past. Gold will soon be coming from South Africa. Which direction will the index number take ?

The Regained Commerce of New Orleans

NEW ORLEANS does not look like itself at all these days; for its pulse throbs with a new life, a commercial activity its people have not known for many years. Early in the nineties the sluggishness into which the city had fallen began to give way to new conditions, and trade lost years before began slowly to return to the port. Then came quarantines for three successive seasons — 1897, 1898, 1899 — which paralyzed commerce; but it spurred business men to action, and the result is one of the most gigantic sanitary projects the world has ever known. The past summer was remarkable for phenomenal health conditions, and the knowledge that there would be no quarantines this year restored confidence, and plans were laid for a record-breaking business for 1900–1901.

Thus, when the season opened, New Orleans was better prepared for handling an immensely increased trade than ever before in her history. The tide turned in her favor. Then Galveston was wrecked. Cotton, grain, lumber, and countless other commodities poured in, and the wharves for miles along the river front soon assumed an unwonted activity. The facilities of the port are not being taxed; the preparation has been too great for that, but the large number of vessels clearing, the increased quantity and value of their cargoes, the tens of thousands of laborers employed in handling the augmented commerce, the magnitude of the bank clearings, and the general prosperity tell the story in a language that may not be misunderstood. High-priced cotton is largely but not wholly responsible for a 51 per cent increase in bank clearings. A reclaimed coffee trade and an active export business in lumber and grain all figure to no mean extent.

The wonderful growth of the rice-planting industry in Louisiana has attracted the attention of

Northern capitalists, and an effort is now being made to form a combine, backed by $7,500,000 of capital, for the purpose of controlling the rice markets of the United States. The promoters of this scheme are New York men, and their plan is to secure an option on 90 per cent of the rice crops of the country for four years. Several meetings have been held in the rice district of Louisiana and the plan explained to the planters. In most cases the planters signed the contract presented by the promoters, which, in return for the option, guarantees that the combine would buy all the rice raised by the signers and pay for it at increased prices. The promoters express confidence in the ultimate success of the scheme, the planters are non-communicative, while the brokers, whose business will be ruined if the combine is successful, laugh at the idea of $7,000,000 or any like sum being raised for such a purpose. The outcome is awaited with considerable interest in New Orleans.

The Louisiana Centennial at St. Louis

A POWERFUL factor in the business and social life of St. Louis for the next two or three years will be the centennial, in 1903, of Jefferson's Louisiana expansion. This is to be celebrated by a world's fair in St. Louis. Every activity in the city will be quickened by it. Its influence is already beginning to be manifested. Part of the great increase which is taking place in the city's postal receipts is due to that cause. The real estate market is strengthening on account of it. Many of the inquiries for business sites in the city are incited by it. Possibly some of the new manufactories which are locating in St. Louis have this as an attraction. Probably the increase which is being made in the output of many factories already here and that which is being planned in others have this as an impelling cause.

Chicagoans say the Columbian fair of 1893 added 100,000 or 150,000 to their city's permanent population. St. Louis expects to be benefited in a corresponding degree by the international exposition of 1903. World's fairs are popular in this age, and St. Louis feels that it can easily avoid some of the mistakes made by Chicago in 1893 and by Paris in 1900. It is confident, also, that in some respects it can improve on the great exhibitions held in both of those cities.

Celebrations of anniversaries of epoch-making events have an educative influence aside from the exhibits which those taking the form of international expositions attract from all parts of the globe. In arousing an historic interest in the particular event commemorated, they induce further incursions among readers into the historic field in every direction, and add to the sum total of human knowledge. This influence is especially active in St. Louis at this moment, as is shown by the increase in the number of books on history and biography, especially American history and biography, which are called for in the city's circulating libraries and which are sold in the city's bookstores.

St. Louis' future, however, is not dependent on the success or failure of the international exposition of 1903. It is the fourth city in the United States in population. It is growing faster than are its nearer neighbors on the census list — Boston and Baltimore. Physically, industrially, and intellectually it is expanding with gratifying rapidity. Omitting Chicago from the calculation, it is the metropolis and great distributing centre of the Mississippi valley.

St. Paul's Substantial Growth

THE growth of St. Paul is marked in many ways other than by increase in population. The capital of Minnesota has become strong in commerce and manufacturing. There is hardly a country on the globe in which her products are not found. Improvement is noted in railroad facilities, in public buildings, parks, and paved streets. The advance made during the past year in the wholesale and manufacturing trade has been greater than during any similar period in the city's history.

Nearly four hundred miles of new railroad have been added to the territory of the St. Paul jobbers during the year, while the population of the consumers in this same territory has increased more than one hundred thousand. The effect of this development of new country is shown in the expansion of the business of wholesale merchants.

Among the successful manufactories which have come into prominence during the past year, is the grass twine factory, now one of the largest institutions in the state. The raw material for the manufacture of binding twine, rugs, carpets, and matting is the common wire grass found in the swamps of Minnesota and western Wisconsin.

The grass binding twine has supplanted the Manila twine in the harvest fields and is acknowledged to be as good, and is certainly much cheaper, than the foreign product. The grass is treated to a patented process which makes it as pliable as cotton threads, and in this state is woven into many highly artistic designs for home and office comfort and decoration. So extensive has been the demand for the products of the twine factory that the plant has been kept in operation night and day a great portion of the time.

The state capitol, now nearing completion, is, with only a few exceptions, the handsomest public structure in the country. Built entirely of white

Georgia marble from basement to top of dome, highly sculptured, many of the figures being the handiwork of Daniel Chester French, there are few more beautiful buildings to be found anywhere. The $1,500,000 federal building, under construction since 1895, is now occupied, though not entirely finished.

The Passing of Old Philadelphia

OLD Philadelphia is a passing city, and new Philadelphia an accomplished fact. New blood has wrought the change. For over a century the old-fashioned, white-shuttered houses about Independence and Washington squares had been the sarcophagi of mummified ideals of fame. Within the past ten years a new generation has risen to power, and these tombs are giving place to new buildings, hives inviting industry. The men who existed in these houses are gone. Many of them amassed immense fortunes, not by the fostering of industries, but by quietly accumulating money from rent rolls, from safe foreign speculations, and from mild real estate ventures. The heirs, however, who now control these fortunes are not content to follow the methods of their fathers. They dare to make bolder ventures; they want to see their money work; they want to double in a decade what was accumulated in a half century.

Nowhere is the new order of things more markedly in evidence than in the vicinity of Broad and Chestnut streets. There "sky-scrapers" are building. The tallest at present is the nearly completed *North American* building, where that newspaper will have its home after the end of the present year. This is the younger Wanamaker's enterprise. The elder Wanamaker's new building, which will stand where his store now is, extending from Chestnut to Market Street, and from Thirteenth Street to Penn Square, will perhaps be the largest building ever erected by an individual. Plans are being made for it, and Mr. Wanamaker is said to have declared that he will spend $5,000,000 on the building alone. The *North American* twenty-story building represents an investment of one-tenth of that sum.

Penn Square, enclosing Philadelphia's $23,000,000 city hall, is being surrounded by new tall buildings. Matching the great Wanamaker building, which will tower over the southeast corner of the square, will be the new Pennsylvania Railroad office-building on the southwest corner. This building will be thirteen stories high, and will be known as the Continental Trust Company building, that company to have a bank on the ground floor. A bridge over Market Street will connect the new building with the Pennsylvania Railroad's Broad Street station.

Two new theatres, to cost $1,000,000 each, are assured. They will be Keith's, on the old Baldwin mansion site, on Chestnut Street, above Eleventh, and the Garrick, to be built by William Wrightman, on Sansom Street, below Broad. This theatre will have a Chestnut Street entrance. Two hotels to cost $1,000,000 each are also promised. John Stafford, an operative builder, will erect one of these on the southeast corner of Thirteenth and Walnut streets. The other is to be built upon the site of the old Epiphany Church, on the northeast corner of Chestnut and Fifteenth streets, by Anthony M. Zane, another operative builder, who bought the site from Mr. Wanamaker for $1,000,000. Four years ago the great merchant paid $600,000 for the place.

Mr. Zane is said to be backed by Messrs. Widener and Elkins, of the Land Title Trust Company, and these two millionaires have practically completed arrangements for the purchase of the Lafayette Hotel, on Broad and Sansom streets, proposing to tear it down and to extend the Land Title Trust office building, seventeen stories high, over the site. Across Sansom Street from the hotel is the Union League Club, facing Broad Street. Next year the building will be torn down, and the largest club building in the world will take its place.

A Southern Coal-shipping and Ship-building Centre

BALTIMORE business men are keenly interested in the agreement lately made by the United States Shipping Company to handle the export business of a number of steamship lines having schedules between Norfolk, Portsmouth, and Newport News and foreign ports. It has been the custom for a vessel to take on part of its cargo at Newport News, for instance, then to proceed to Norfolk or Portsmouth to complete it, and *vice versa*. The expense of transferring ships of the size which serve these cities from one port to another, the time lost in stopping and getting under way, and the item of additional labor have amounted to a large cost. As a very large quantity of breadstuffs, salted provisions, metals, and manufactured products for export come direct to Newport News over the Chesapeake & Ohio and its connections, it is intended to make that city one of the principal loading points for such freight, and much of that received at Norfolk and Portsmouth will be barged to Newport News. The general agent of the United States Shipping Company at Norfolk says that whenever it is more convenient for a vessel to take on cargo at Norfolk or Portsmouth a ship will be sent to these wharves directly. Norfolk and Portsmouth have been the natural receiving points from the South proper for Southern exports, such as cotton, lumber, and naval stores. Most of the cotton has been sent to North Atlantic cities for shipment

abroad, the Old Bay Line, Merchants & Miners' Transportation Company, and the Old Dominion Line carrying it to the ports mentioned, thus largely increasing their freight business.

With one agency to represent the several lines, they will be working in harmony, and the outlook will be to greatly increase the foreign business from the Hampton Roads cities as a whole. The terminals at Newport News, which are among the best in the world, are admirably adapted to handle this. The elevator capacity alone is about 2,500,000 bushels, while vessels can be loaded from no less than ten different piers arranged for the direct and economical transfer of freight of all kinds. The coal export trade of that port, already very heavy, is growing rapidly, and all indications point to the possibility of Newport News and Norfolk becoming one of the greatest coal-shipping centres of the world.

The steadily growing business of the Maryland Steel Company is proving the foresight and business sagacity of the capitalists who established that concern at Sparrows Point ten years ago. This company has secured a contract for the construction of two steamships, which are to be devoted exclusively to freight carrying. The order represents fully $1,000,000, and, including it, the Maryland Company leads all of the ship-yards in the United States in contracts so far secured for exclusive freight ships. Its work now on hand includes four vessels of a cargo capacity of over 11,000 tons; one vessel of 5500 tons; the largest floating dry-dock in the world, to be located at Algiers, Louisiana; two sea-going dredges, which are the largest in the United States; and three torpedo-boats for the government.

Water Outlets for Steel and Coal

NO more vital question of industrial growth has ever presented itself to the capitalists of Pittsburg than the one now being turned over in their minds as to what the near future will bring forth for the city's vast coal interests. Both of the big local combinations, one covering rail and the other river shipments, have under consideration from Europe propositions to supply consumers there with from four to five million tons of coal, the greater portion for steam purposes. How much of this will be actually turned into orders is as yet uncertain, but that is a small point in the whole subject matter. The fact that a time has come when Europe turns to America for the fuel which England is to-day supplying only by great strain on her mining facilities is the grasping one which has taken root in the minds of the Pittsburg coal operators.

The brains and energy of the coal and iron industries about Pittsburg are now concentrated in an effort to solve the transportation problem, which is the single barrier confronting them in the way to supremacy in Old World markets. Far-reaching schemes are under consideration. Two of these are artificial waterways leading to the ocean; and the inquiries which have come to Pittsburg from Europe this fall for enormous consignments of coal, along with the necessity of the iron and steel makers to market more of their products abroad in order to keep the mills busy, have made earnest champions for each scheme.

Pittsburg manufacturers wish the United States to build the Isthmian canal. With the Ohio River slackwatered, the works to do it now rapidly nearing completion, and the canal cut, western Pennsylvania would send by boat millions of tons of freight yearly across the Gulf of Mexico and through the canal to the markets of the Pacific.

The other big waterway proposed is a canal to join the Ohio River with Lake Erie. Four or five years ago, the Pittsburg Chamber of Commerce spent nearly $50,000 in surveys on this scheme. Interest lagged with the building of the Carnegie railroad from Pittsburg to the lake, but five years have wrought such giant changes in industrial possibilities that what looked like an impossible undertaking then, now presents itself virtually in the light of a necessity. A local engineer of ability and some of the canal's stanchest friends feel sure it will be built within a very few years. Congressman John Dalzell will present a bill in Congress this month to give the Lake Erie and Ohio River Canal Company a national charter. The canal cost in building is estimated at $30,000,000. The manufacturing and mining combinations of Pittsburg could supply that amount among them without much, if any, strain on their financial resources. The men behind the scheme believe no trouble will be encountered in raising the money if Congress acts favorably.

The great boom in the steel market of last fall and winter closed the eyes of manufacturers to trade offerings outside North America. Orders for foreign delivery went begging from mill to mill. Not so now. The utmost energy is being expended to get this foreign business and find a way to come out ahead of the enormous ocean freight rates. The city numbers many more advocates of a merchant-marine measure than it did a few years ago, although some of its early advocates were Pittsburg manufacturers. There is a general feeling that a little governmental encouragement would bring millions of capital into the ship-building industry, and soon creating enough American bottoms to carry this country's products, instead of having to depend almost solely on Europe's shipowners.

The Future of Boston as a Port

BOSTON'S opportunity for commercial advancement in the immediate as well as in the remote future is believed by her most substantial business men to lie in the development of her resources as a port. In the past three years it has advanced by a greater per cent in the amounts and values of shipments to foreign lands than any other port on the Atlantic seaboard, and the growth of business in that line is regarded as having only fairly begun. Its Chamber of Commerce has diverted to Boston a very large amount of the cotton shipments which formerly went abroad by the way of Baltimore and New Orleans. Its grain trade is increasing enormously. The Central Pacific railroad, which formerly carried all its large tonnage of grain to St. John, is now sending the bulk of it to Boston because the terminal facilities are better, and better ships, with greater tonnage, can be had for export purposes than can be had at St. John.

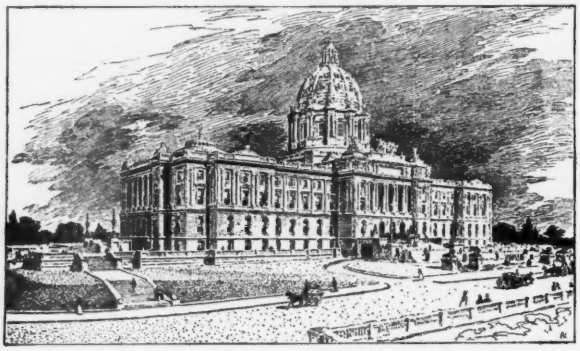
Since the Boston & Maine railroad came into possession of the Fitchburg railroad it has made a traffic arrangement with the Grand Trunk road, by which that company sends to Boston a large proportion of the grain which it formerly delivered at Atlantic ports in Canada. The winter rates, almost prohibitive from September to May at St. Lawrence points, have also diverted much grain traffic to Boston, and it is being encouraged to stay. Boston's elevator and other facilities for shipment of grain are already highly developed, and with the completion of the new Commonwealth docks, now in process of construction, will be unexcelled by any American port. When the docks are completed, one of the larger transatlantic lines now having New York as its main American port, will transfer the principal part of its business to Boston.

Effects of Sanitation in Memphis

THE growth of Memphis, Tennessee, during the last ten years has been something of a surprise to the country. In 1890 Richmond, Nashville, and Atlanta each had a larger population than Memphis, but the census of 1900 gives Memphis 102,320 as against 64,495 in 1890. The fact that Memphis has permanently enlarged her limits during the last two years does not account for this increase, because the suburbs were included in the city limits in 1890, and the 64,495 represented not only the urban but the suburban population. There has been an increase of nearly 59 per cent.

But the growth is not confined by any means to population. In 1890 the city had 250 industrial concerns. In 1900 it has more than 800; and the average capital stock of the manufacturing enterprise of to-day is fully four times as great as of the concern of ten years ago. Memphis is the greatest inland cotton market in the world; but cotton has become the secondary interest. Memphis is the first hardwood lumber market and the second lumber market in the world; and about 8000 persons are employed in the business.

The Waring Sewer System has redeemed the city, and it ranks among the first in health. Situated where Tennessee, Arkansas, and Mississippi meet, it is the metropolis of three states. It has river navigation, and eleven trunk lines of railroad radiating in all directions. The great bridge over the Mississippi is one of the most imposing in the world. The city has had to live down its yellow fever reputation. Its recent history is the best proof in the whole world perhaps of the value of an absolutely sound sanitary system.



THE NEW CAPITOL OF MINNESOTA AT ST. PAUL.