

THOMAS A. EDISON, THE "WIZARD OF THE NINETEENTH CENTURY."

AUTOGRAPHS AND PORTRAITS OF THREE SUCCESSFUL NOVELISTS.

Most readers of fiction during the past decade or so have at one time or another gone wild over one or all three of the novelists whose portraits and autographs appear in the accompanying illustrations. It would be difficult to tell which has the largest following: Crockett, Hardy or Wells. Each has made his reputation by superlative work in his special line, and the only one of the three who has reached middle age is Thomas

Thomas Hardy
Hardy. He was born in 1840, was educated for an architect, became a novelist thirty-six years ago and had his first book published in 1865. He became famous through his novel "The Mayor of Madding Crowd" in 1871. He lives quietly at Max Gate, Dorsetshire, and owing to delicate health would lead a retired life if his many admirers would let him do so.

Samuel Rutherford Crockett is a brawny Scotsman 6 feet 4 inches tall and forty-one years old who was educated for the ministry, entered the Free Kirk in 1858 and turned novelist when he found that writing paid better than preaching. This was

S. R. Crockett
in 1893, when his "Stickit Minister" gave him immediate fame. He has continued to write ever since, until his books now number more than a dozen. He rises early, does his "stint" of about 3,000 words before noon and devotes the rest of the day to recreation, his favorite pastimes being mountain-climbing, cycling and golf.

If character can be shown by autographs, it certainly is manifest in those of Crockett, Hardy and Wells, as given herewith, for the signature of the first is big and sprawling, that of the second as well as of the third fine and limber. Both Hardy and Wells are delicate and sickly men, dainty in their mode of life and writing. H. G. Wells

H. G. Wells
is the youngest of the trio, being only thirty-five years old. The son of a professional cricketeer, and proud of it, he certainly did not inherit from his father the imaginative temperament that has given birth to so many quaint conceptions, as shown in his "Time Machine," "War of the Worlds," etc. With a smattering of scientific knowledge, a la Jules Verne, he manages to give a tang of realism to the most unreal subjects and fascinates his readers by sheer assurance. His first book was published only six years ago, and, like Hardy and Crockett, he is still writing, with no sign of diminished power or fecundity.

DANIEL COIT GILMAN, LL. D.
Dr. Daniel Coit Gilman, formerly president of Johns Hopkins university, who has been selected to direct the projected institution for liberal education and scientific investigation to be founded in Washington through Mr. Carnegie's gift of \$10,000,000, is already a man of large activities, notwithstanding his age, which is seventy. He is admirably equipped for such a position, his attainments having been recognized by the title of LL. D., bestowed by several colleges. He was a member of the United States commission on the Venezuelan boundary, is a trustee of the Peabody educational fund and president of the Civil Service Reform league. Dr. Gilman is always in request when works of great importance are forthcoming, like this Carnegie benefaction, which it is purposed to make the broadest and most liberal educational scheme of the world.

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If an excuse be needed for repeating the oft written biography of Thomas A. Edison, the "wizard of electricity," it may be found in the fact that it is one of the most instructive and encouraging in the annals of human endeavor. While in a general way all are familiar with that biography, yet the man Edison is lost sight of in the halo of romance which has been cast about him and his wonderful achievements by the multiplicity of his inventions.

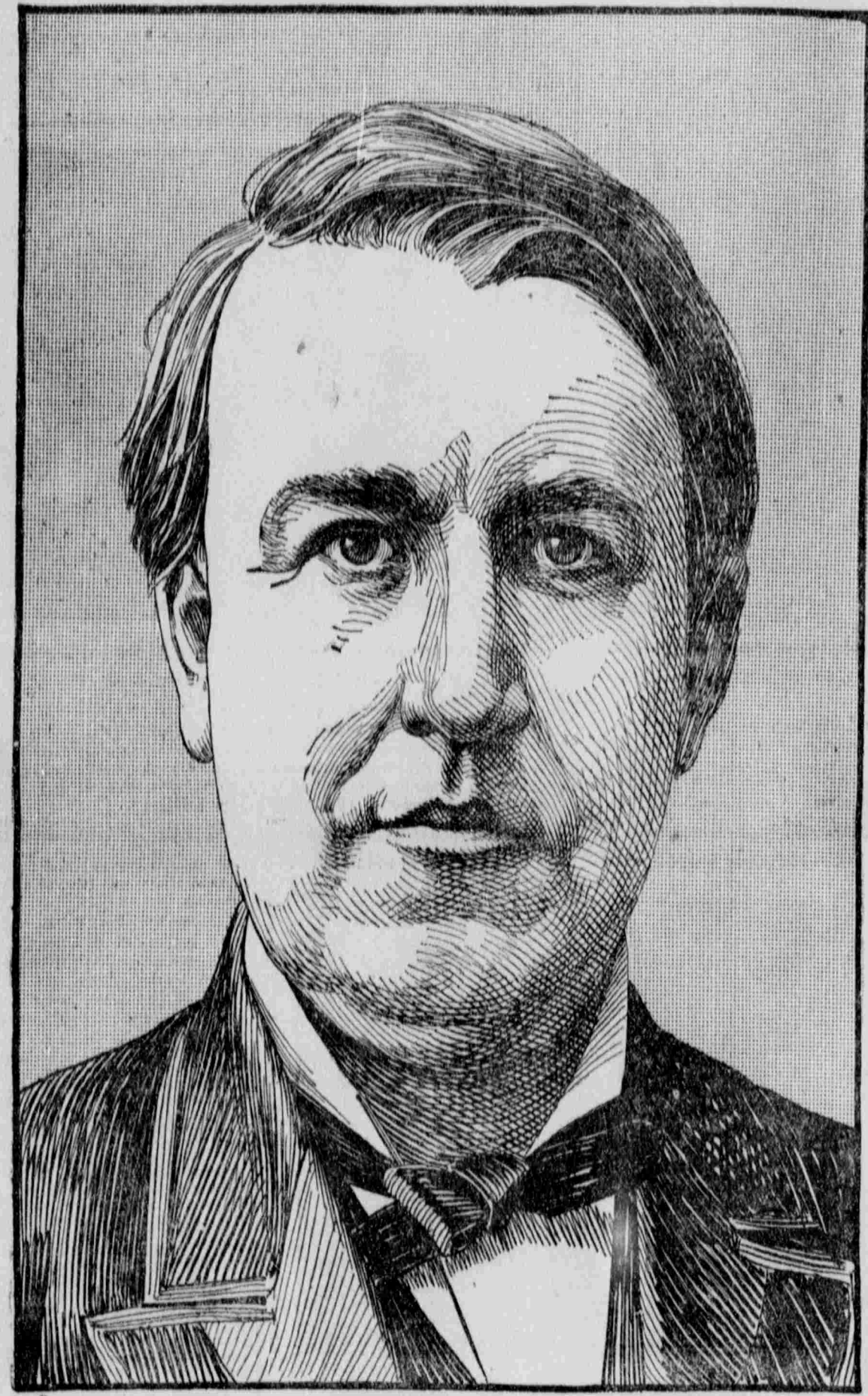
Such another scientific genius perhaps never existed since the beginning of the world, yet he lives and moves among us an individual of the simplest and most approachable kind, particularly human in his sympathies and decidedly human in his appetites and acquisitiveness. Had he been born in the fourteenth century instead of the nineteenth, one writer has observed, he would probably have had his activities terminated in short order at the stake instead of being honored with medals and receiving the approbation of his fellow men. Had he lived in most ancient times he would have been hailed as a demigod. But it is to the lasting benefit of the world in general and of this country in particular that Thomas Alva Edison was born in the world's most progressive century and that his birthplace was in America.

It may come as a surprise to many minds that Edison is not an original investigator, not an inventor in the primary sense, but that he is and has been all along merely an improver of other men's ideas, forming an intermediary link between the speculative philosopher and the practical consumer. There probably never was another combination like Edison, of the earnest inquirer into nature's partially revealed secrets endowed with a well stored and logical mind which carefully co-ordinates facts and pursues an experiment to its inevitable conclusion. Not only is he a mental wonder, but a marvel of physical well being, capable of laboring for the solution of a knotty problem for days and nights in succession without rest and of quickly recuperating by a few hours' sleep and the rapid assimilation of an enormous amount of food swallowed in haste, without regard for hygienic laws.

A temperate man, yet he uses tobacco in excess; a world famous man, yet he is perfectly indifferent to clothes and society and cares nothing for fame or the applause of others. Without being a mathematician, he performs in his own way the most abstruse calculations; without school or college training, he has outstripped the most carefully "educated" men of our times. He is a perfect human machine, created at just the right time to perform the work for which the century was ripe.

Though totally devoid of pride or self consciousness in his achievements, Edison has a just appreciation of the relative values of things and stands forth conspicuous as almost the only inventor who has realized a vast fortune from his labors. He has thrift and acquisitiveness in perfection and has detected great principles and prospective millions in inventions discarded by others as impracticable.

It has been said that Edison has never made an original discovery, as the physicists regard discoveries, but he has improved and made available numerous discoveries of others, which, after all, is just as important in the end. But for Edison, perhaps, many an invention that is now working incalculable benefit to humanity might still be lying dormant. All these of which he is the putative father would eventually come to light, of course, as beneficent nature intended, but probably in a later century or period. Thus the present generation is Edison's debtor even though it be conceded that it cannot laud him as more than an agent in carrying on the great scheme of world development by anticipating cosmic discoveries an aeon or so. Always thrifty and with an eye to the main chance, no mat-



THOMAS A. EDISON.

ter how absorbed he may become in his work, Edison is the typical Yankee, the original concept of our Uncle Sam. Shrewd, calculating, kindly, honest, tenacious of his rights and ready to fight for them, but never aggressive—in fact, he is the ideal not only of American, but of European people, who all delight to honor him. Of medals from scientific societies and decorations from crowned heads he has more than he cares to count on, in fact, has kept a record of, all of which goes to show that in honoring this modest and unassuming inventor monarchs and men of science recognize that they are also honoring themselves.

The main facts in Edison's career cannot be repeated too often for the benefit of the rising generation and as illustrative of the possibilities of one lifetime. Only fifty-four years old (Edison was born at Milan, O., Feb. 11, 1847), he may well be pardoned for giving his years as nearly a hundred since he has crammed so much into them. His primary education was received more from his mother, who before her marriage was a schoolteacher, than in any school, and at twelve years of age he was selling papers on the Grand Trunk railway and owned a newspaper, a bookstore and a vegetable market. An omnivorous reader, he made several attempts to devour whatever libraries he came across, taking indiscriminately to fiction and mathematics. At fifteen he printed in a baggage car a paper said to be the first ever published on a railroad train, and, although he was editor, typesetter, pressman, "devil" and vender, paragraphs from it were so good as to be copied in such journals as the London Times.

This venture came to an untimely end through an explosion of chemicals with which Edison was experimenting, and he was forthwith "fired." Having learned telegraphy from a station agent whose child he had saved from being run over by a locomotive, he secured a position in a Canadian telegraph office, which he later left in a hurry after having caused a collision through negligence, owing to his absorption in an experiment. At seventeen he was in Memphis, Tenn., earning \$125 per month and rations as a government operator and later on in Boston, when he took out his first patent. As this did not yield him a pecuniary reward, he formed the resolution, he says, never to work upon an invention unless he had satisfied himself beforehand that it would be a success in the field for which it was intended.

His fortune may be said to have come to him soon after he reached New York in 1871. He invented a "stock printer" and automatic telegraph system while working at a salary of \$200 per month. His invention was eagerly seized upon by the Western Union Telegraph company, which contracted with him for all his future telegraphic inventions, and by means of this option has since secured from the world many a patent which would have won an ordinary man fame and fortune.

It was thirty years ago that Edison took out his first patent and a quarter of a century ago that the commissioner of patents at Washington complained of the "young man in New Jersey who has made the path to the patent office hot" by traveling so frequently. As contributory to the perfect development of the telephone he compelled Professor Bell to divide his profits with him by fighting him in the courts, and after his victory for a time abandoned telegraphy, in which he has won such distinct successes in his duplex and multiple systems, such as the process for telegraphing from a moving train, etc., and devoted himself to "phonics," in which he made many discoveries, such as the microphone, which multiplies sound; the aerophone, which amplifies it, and, above all, the phonograph, which reproduces it indefinitely. Then there are the kinetoscope and other kindred concepts—in fact, Edison seems to have driven his trains along parallel tracks, but always with electricity, either immediate or suggested, as the motive power.

Electricity, like fire, is a good servant, but a bad master. Edison has always kept it in its proper place as a servant to mankind, and in 1879, after years of experimentation, took the public into his confidence by giving a demonstration of what he had done in the way of incandescent lighting. He successfully solved the problem of universal lighting by gas, after this whatever he did was accepted as a matter of course, for he had accomplished what experts had declared was impossible.

The incandescent light has been termed his greatest achievement, but there is no limitation to the genius of an Edison, and when he shall have turned his serious attention to aerial navigation his admirers will at once plume their wings for flight and send in orders for their aerodromes, or whatever he may recommend. In fact, it has been

IN DIFFERENT LANDS.

No plant, not even the nettle, grows in all parts of the world. Only eighteen species are known which show themselves at the same time over half the land surface.

In size, not counting colonies, the European powers stand in this order: Russia, Austria, Germany, France, Great Britain, Italy.

A strange custom is followed by Mex-

ican farmers. They use oxen of one color in the morning and another color in the afternoon. No explanation is given of this habit, but they know it must be the right thing to do because their forefathers did it.

English is the language of the Japanese foreign office, both in its intercourse with foreign diplomats and its telegraphic correspondence with its

own representatives abroad. All telegrams from Tokyo to the foreign agents of Japan are written and ciphered in English, and the replies are in the same language.

It is computed that as many as 1,500 Jews have fought on the British side during the Boer war, and there are on record ten several instances of three Jewish brothers being on service with British regiments in South Africa.

The Rev. Alfred Gatty, D. D., who

claimed that Edison has made a long step forward in this direction by his latest improvement on the storage motor, which has reduced the weight of the average battery nearly one-third and also increased its power, so that it may soon become universally applicable as a means of propulsion. Another invention to which he has devoted, it is said, a capital of \$2,000,000 is his "magnetic separator" for extracting iron from low grade ores. This system is already in operation and, if Edison's hopes are realized, promises to revolutionize the iron and steel industries of the world.

Then, again, as an incident of his greater work, Edison has developed a method of constructing houses of cement after the old Mexican fashion by using a "mamposteria," or conglomerate, poured into molds, making such a saving in construction that buildings may be erected at a great reduction from present prices. Having now some 600 patents to his credit, Edison derives from them a princely income; but, although always keeping his eye on the "main chance" for himself, he has been of incalculable benefit to the world and incidentally added billions to his total wealth. In his storage battery motor alone are doubtless great possibilities as yet untested; by his telegraphic and telephone inventions, with all the accumulated knowledge derived from years of investigation carefully conducted step by step, one cannot but believe that Thomas Alva Edison has yet residing within that cunning brain of his vast potentialities which, despite the incredible achievements already to his credit, may yet astonish the world. FREDERICK A. OBER.

MRS. T. ST. JOHN GAFFNEY.

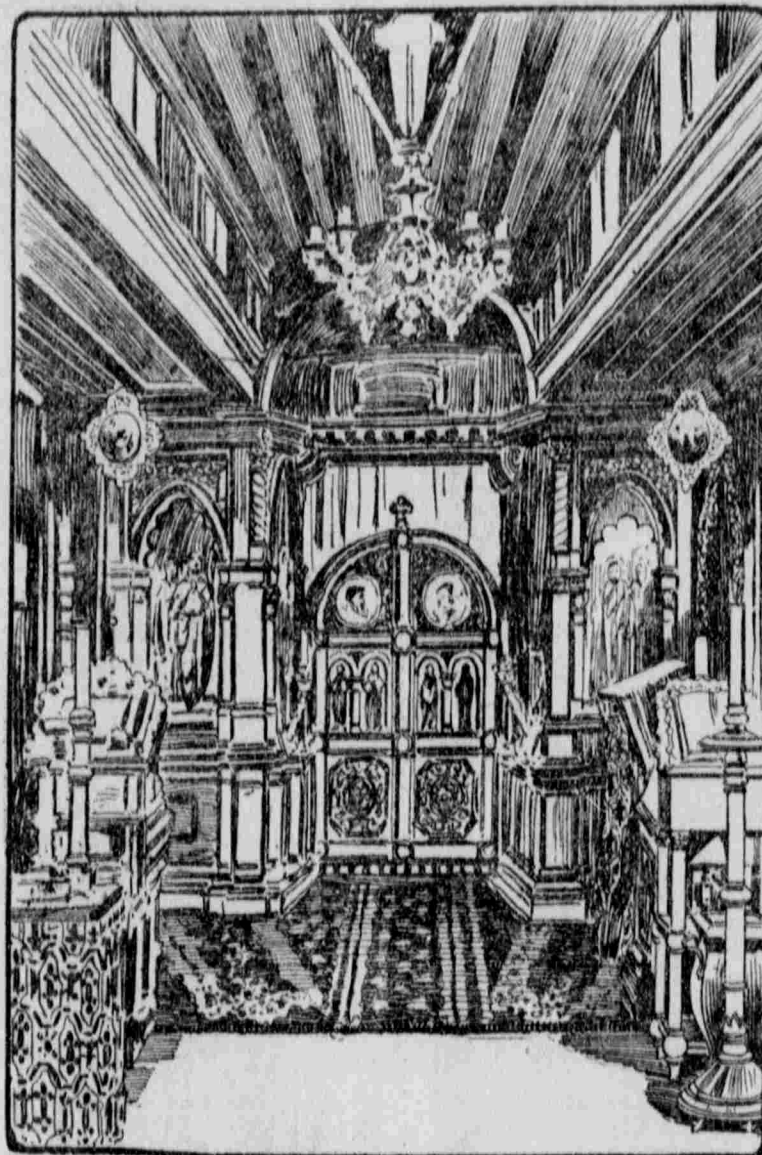
Mrs. T. St. John Gaffney, whose portrait appears in the accompanying illustration, has been president of the National Council of Women of the United States since 1899. She is a graduate of Bay View Institute, Long Island, and of the woman's law class of New York university. Popular in society and prominent as a self-constituted



ed redresser of women's wrongs the world over, she has recently attracted attention by denouncing the manner in which the Boer women and children are treated in the concentration camps in South Africa. With the acuteness of one trained in the law, she has promptly perceived the weak points in the British armor and promises to be a formidable opponent of the British policy in South Africa by continually agitating against it in this country and abroad.

Seventy thousand tons of cork are used yearly for bottling beer and mineral waters in England.

INTERIOR VIEW OF A CHURCH ON WHEELS.



The accompanying illustration is a reproduction of a recent photograph of that unique church on wheels which occupies one of the cars that travel over the newly opened Transiberian railway. Here the ornate Greek service is performed while the train rolls over the rails and occasionally at way stations in order that everybody may have opportunity to worship, even though far distant from a regularly instituted church. It is called, and probably with good reason, the most extraordinary church in the world.

PHOTOGRAPH OF THE ITALIAN CROWN PRINCESS TAKEN BY THE QUEEN.



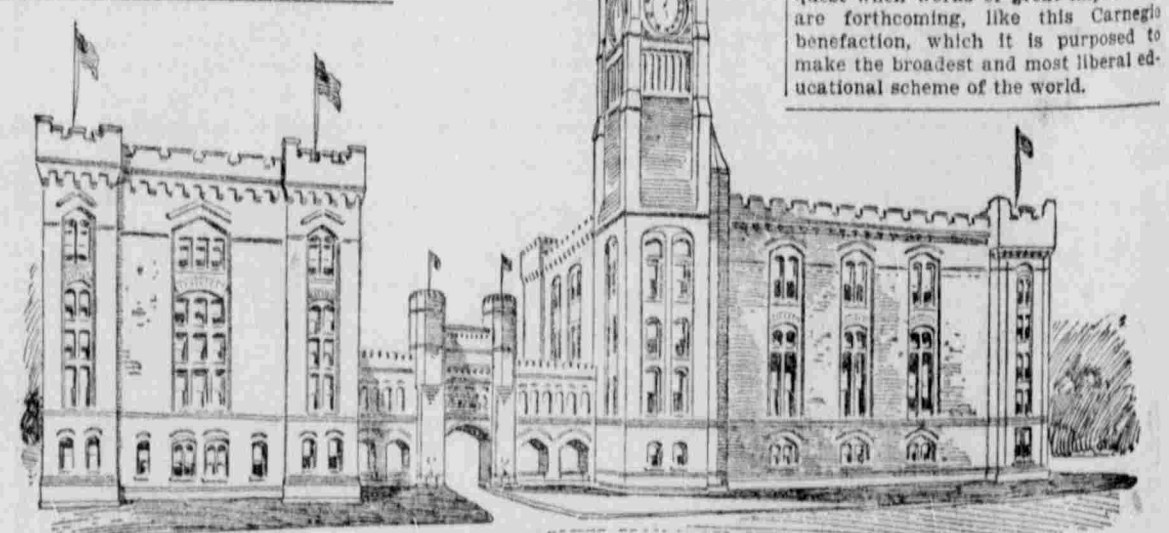
There is an interest attaching to the original of the accompanying illustration that few photographs can boast, owing to the fact that it was taken by a queen. Queen Helena of Italy is an ardent amateur photographer and has made many pictures of Italian scenes, including some that are far distant from Rome and the royal palace. It was quite natural, then, that she should pose and photograph her beautiful baby, the Princess Yolande, and also in consequence with a mother's pride that she should present copies of the best specimens of her handwork to the ladies of her court.

AUTHOR OF "THE AMERICAN COMMONWEALTH."

The Right Hon. James Bryce, M. P., who, although in his sixty-fourth year, is still athletic and vigorous, is one of the busiest of men, not only engaging



in political, but professional pursuits, as well as giving much time to his books. He has won lasting fame by such books as "The Holy Roman Empire" and "The American Commonwealth," both of which are generally looked upon as classics. The latter especially has found great favor on this side the Atlantic, holding a place in the book world similar to that of Taine's "History of English Literature." Mr. Bryce's father was Scotch, his mother Irish, and he received his collegiate education in Glasgow university, Oxford and Heidelberg. An indefatigable mountaineer, he is quite proud of the fact that he is one of the few men who have stood on the summit of Mount Ararat. His address is 54 Portland place, London.



BEAUTIFUL STRUCTURES SOON TO BE BUILT AT WEST POINT.

It has long been a notorious fact that our government buildings pertaining to the Military academy at West Point nearly always have been wholly inadequate to its needs. With a magnificent property, so far as location and extent are concerned, West Point's architectural features are altogether out of harmony with its natural scenery. It is purposed to remedy this great defect by erecting such structures as will in effect wholly change the aspect of West Point and provide for all its needs in time to come. To this end a committee of military experts under direction of new ones. This has been done in accordance with President Roosevelt's recommendations in his message to congress, and the scheme includes not only new academic and administration buildings and cadet barracks constructed along modern lines, but a mammoth memorial viaduct to connect the more important structures themselves. The principal buildings will be the new academy, 270 feet long and 70 feet wide; the new riding hall, 600 feet long; the administration building, of stone, 140 by 65 feet, and a large hotel. The total cost is estimated at \$4,500,000.

and she has a variety of other talents. She has traveled and has described her travels in magazine articles. The happiest years of her life were, she says, the three spent in Australia, during which her husband was governor of New South Wales.

John S. Sargent, R. A., sometimes tells of a ludicrous mistake he once made which brought home to him the need for verifying details. At the request of the trustees of the Boston li-

brary he painted some scenes on one of the frescoes and sought to represent in Hebrew characters "I am thy God." When the work was finished and ready for inspection, he was dismayed to hear a Jewish friend declare that his Hebrew inscription read "Thou art shalt not."

The characters were promptly revised. A new lightship which is anchored off the Scottish coast carries no crew. The compound gas system provides for the lights for several months at a time, the

gas being contained in a large tank and conducted through pipes to the hollow mast, on one of which is supported the lantern. A large fog bell is rung by the roll of the vessel or by the passage of the gas to the lantern when there is not sea enough to ring the bell.

Out of every 1,000 people in the United Kingdom 454 are men, 516 women. The ratio of girls to boys is only 49 to 100, but many more men emigrate than wo-