Strange as it may seem, it is a fact that the average American knows very little about his own Government. He knows his Senator, with his every-day affairs to give much attention to its activities. He knows that it is divided into three branches, the executive, the judicial, and the legislative. He knows the name of the President, the Vice-President, and probably two or more of the Cabinet, the names of the Senators from his State, and the Congressman representing his district. Every two years he goes to the polls—that is, if nothing more important interferes—and votes. Beyond this point he takes little interest in his Government until perchance he discovers through the medium of his daily newspaper something in the Government to criticize.

During my labors and studies of the past year and a half it has often impressed me that the average American knows scarcely more of the problems and accomplishments of his own War Department than he does of the geography and history of the Netherlands. He knows that there is a Regular Army; that its officers are trained at West Point, that there is a militia, that there is a National Guard. The extent to which an emergency he and his fellow citizens will become a part of the military force of the nation if their services are needed, and that in time of war an American Army will acquit itself with honor and credit. In time of peace, however, so little publicity is given to the activities of the Regular Army that it is very seldom, if ever, brought to the attention of Mr. Average Citizen, and if he gives any thought to it at all he is apt to think of the Army as an organization housed in very comfortable barracks, which drills a little, parades on national holidays, stands guard at forts along our coast for which we may never have any use, has a number of vague and probably unimportant duties to perform, and costs a great deal of money which could well be devoted to other purposes. I have accordingly felt it to be one of my duties to bring to the attention of our citizens the varied and important activities of the Army. My efforts in that direction quite frequently draw the response, "Well, I didn't know that." This always encourages me in my efforts, since we appreciate true self-government can come only through knowledge. It is my present purpose to endeavor to interest you, as I have been interested, in this instructional problem, which is usually followed by the comment, "Well, I didn't know that."

This, I believe, is one of the most interesting aspects of military training. We are living in an age when most serious-minded men are studying the problems of race betterment. All about us are springing up organizations such as the "better babies" movement, the "Life Extension Institute," and other activities whose purpose is the enrichment of our national life through physical improvement. What will be the influence upon our future of our physical evolution? Every American should ask this question, and there is no better source of pertinent information than in the writings of the Surgeon General of the Army on "Military anthropology." It is proven therein that the majority of our World War recruits were awkward, narrow chested, under weight, and generally of poorest physical condition. After a few months of training they were developed into broad-chested, two-fisted specimens of American manhood. These citizens received dividends from our defense investment in the form of definite and material gains in weight and in chest measurements. They were enrolled in the greatest "Life Extension Institute" in the world. The War Department was given an opportunity of surveying the health of the nation. Many basic diseases and disabilities—such as weak arches, weak backs, malaria, social diseases, incipient tuberculosis, and the like—were discovered in time and eradicated. Camps were made models of neatness, and personal hygiene and sanitation were taught as primary instruction. It cannot be questioned that the occurrence of these diseases throughout our country has been considerably lessened as a result of the training and medical administration of young men during the war. "Is not this, Mr. Average American, a satisfactory dividend from military training?" "Oh, certainly," you reply, "but I didn't realize that all this was true."

Mothers and fathers frequently protest against exposing their boys to the "dangerous" influences of military camps. They fear that the boys might become dissipated. We reply to these parents that the records of the Surgeon General show that there is a prevalence of social diseases among the young men of our country, straight from their own homes, that constitutes a shocking menace to our national existence. The influence of the military camp is a continual education against the dangers of intemperate life. While the soldier is in camp, he is protected in every possible way from these demoralizing diseases—by education, by disciplinary measures, and by prompt treatment of those who cannot resist nor escape. The American Army in France was accordingly able to establish such a low record of disease that our allies were astonished. We have continued to progress in handling this grave problem and I believe that one of the greatest benefits which can be conferred upon national life through military training will be the effectual control of this menacing evil. The first step is to instruct those who "didn't know that."
The statements that I have just made are sometimes questioned by individuals who remember the disease rates which prevailed in our armies in former wars. The reply is that we have been progressing. During the Civil War smallpox claimed over 7,000 soldier victims; during the Spanish-American War and the Philippine insurrection there were 256 deaths from this disease; in the World War we lost 42. The countries with smallpox although there were 4,000,000 of them in service. In the Civil War over 15,000 men died from malaria, while during the World War we lost to malaria and typhoid fever 20,000 soldiers, or 12 per cent of the total, suffered from typhoid fever; during the World War there were 2,000 cases, or about one-twentieth of 1 per cent. Had the death rates for typhoid in the World War been the same as in 1898, we would have lost 60,000 soldiers from this alone—more than we actually lost from all diseases.

The Pioneer Work of Army Surgeons

It is difficult for the average American to appreciate that the Surgeon General of the Army is not merely the head of a small body of "military" medical men. He truly represents the entire medical profession in the military field, just as the Chief of Engineers represents the engineering profession and as the Army itself represents the American people. The Surgeon General of the Army, therefore, is a living illustration of the wonderful pioneer work of the military, and as the Army itself represents the engineering profession and as the Army itself represents the American people, the Medical Department is an almost ineradicable tendency to believe that the pursuits of peace.

During the Civil War the Army doctors demonstrated that this disease, known as malaria, was the cause of the mysterious sickness called "brown sickness." They discovered the malarial mosquito as the cause of disease through the whole of the United States, and most of the State boundaries, were surveyed and marked by the Army. Practically every boundary of the United States, and most of the State boundaries, were surveyed and marked by the Army. The famous Lake Survey was made by the Army. Because of engineering difficulties involved in its construction, the old lighthouse erected on Minots Ledge in Boston Bay was one of the most prominent sea-rock lighthouses in the world. This, like most of our lighthouses, was erected by the Army. The old channel of Boston Harbor had a depth of only 18 feet. The Army engineers have increased the depth of this important waterway to 35 feet. We have widened it from 100 feet to 1,200 feet, and similar work has been carried on by them in all harbors and navigable streams of the United States.

When the American citizen visits our National Capital he first sight to greet his eye is the stately Washington Monument, completed under great difficulties by the Army. He next turns to the Capitol, of which the wings and dome were built by Army engineers. The Army likewise built the old Post Office Building, the new Municipal Building, the Government Printing Office, the War College, the Agriculture Building, and the beautiful Library of Congress. Army engineers supervised construction of the new Lincoln Memorial and practically all of the park system of the District of Columbia, and built the Washington Aqueduct, and are even developing the playgrounds in our Capital City.

The Board of Rivers and Harbors

I now will discuss the present work of the Army engineers, developing and maintaining our great waterways, including the Panama Canal, which the Army largely constructed and controlled. You gentlemen are familiar with the Army and its activities; it will not bother you with its details. In addition to the present work itself, there is the planning and projection of future activities. The Board of Rivers and Harbors has recently instituted a new region, the port development in our country, concerning their present commercial facilities, the hinterlands which they can serve, their proper development, and factors which advance or
retard their progress. Two of these studies for the ports of Boston, Mass., and Portland, Me., have already been published and are attracting enthusiastic attention among the railroads, shippers, and commercial interests generally. It is felt that this work is meeting a long-felt want.

Then there is another direction of interest. One of the most critical problems in our transportation system is the transfer of cargoes between land and water carriers. Because of the antiquated facilities the transfer costs are often greater than the cost of transport over hundreds of miles by rail or by ship. The Board of Rivers and Harbors is making a thorough investigation of terminal conditions and is giving very valuable advice to the local communities which can profit by improvement in this important respect.

A striking example of this is the project for the development of the port of New York, which presents a most difficult problem. While the Army engineers are not actually physically developing the project, it is being done under their supervision and with their cooperation. The Army engineers are rendering most valuable assistance in developing the ports of Houston, Tex., and Los Angeles, Calif., which are becoming great terminals. The Army is actually constructing the ship channels entering these ports, and is cooperating and advising with the local authorities regarding the construction of terminals, docks, etc. In short, the Army engineers are working with a zeal that is excelled by no other public organization to adapt their various projects to a coordinated scheme for the entire country—one that will fit properly into the industrial and transportation fabric of our national life.

The Army in Alaska

It was not long after the railroads had bound our country into a unity that was further cemented by reconciliation, after the Civil War, when we were faced with the problem of organization of acquired territories; the problem that is perhaps the severest test of the ideals of any nation. Alaska, Hawaii, Cuba, Porto Rico, the Philippines, Guam, and the Canal Zone—one by one these burdens were thrust upon us. We have done this successfully and the major part of the task has been the work of the Army. When our citizens began their mad rush into the Klondike, it was the Army that opened the harbors and built the roads and trails leading to gold. When the gold was discovered or lost, men remained in this new land, and they were protected from mob rule and lawlessness by the Army. They surveyed their lands and policed their frontiers. Their only link with civilization was the telegraph. The Army engineers projected the railroads which are beginning to open the country to intensive culture. Even today, a large part in the administration of this great territory is in the hands of Army officers. Business to the extent of $100,000,000 annually is transacted over the 57 cables and telegraph offices and 17 inland radio stations, all operated by the Signal Corps.

In Panama, our predecessors were unable to remain. The War Department is already playing its as a pioneering role. The American Relief Work

The Philippines, Hawaii, Cuba, Porto Rico, and Panama all have histories of achievement, history in which the progressive forces of civilization have struggled against reaction and decadence. That civilized forces are triumphant is due primarily to the intelligent administration and constructive talents of the American Army. Building up public utilities, eradicating terrible diseases, educating the children, attending even to the spiritual needs, creating the institutions of self-government and protecting them from aggression—in all these the Army left its seal upon our possessions and protectorates and proven itself once more the pioneer of the American pioneers.

A question is asked: "You say that the Army is responsible for our colonization—just what is their success?"

In the Philippines, where strife between tribes was almost continuous, we have built roads, and railroads, and schools, as well as churches, and have done more in 20 years to make the Filipinos a united people than was done before in centuries. Do you realize that we have taught practically all of the children to speak one language—the English language?

In Panama, our predecessors were unable to remain. Our work there is a conspicuous example of what can be accomplished, under the worst tropical conditions, in sanitation, municipal engineering, and construction. The American occupation has exerted and will continue to exert a powerful influence upon all of the near-by countries in Central and South America. These are stimulated to undertake much needed improvements for which the means are derived from the increased prosperity which the Canal has brought. For the last four months the tolls collected by our own Government have exceeded a million dollars a month. Seventy-five lines of vessels serving the great trade areas of the world ply through the waterway. The equipment of the Panama Canal as a base for fueling, supply, and repair is complete. It is, incidentally, a military asset of the greatest importance. It increases our ability in defense at least 50 per cent, although its total cost is no more than the cost of 10 modern battleships, which would be doomed to obsolescence in 20 years.

American Relief Work

Americans do not believe in conquest of territory. The average citizen feels, perhaps, that our pioneering days are over. We cannot admit it, however, because we have not reached the end of our constructive abilities. There are other methods in which a civilization makes itself an influence for good. We have used these in places where we fought for our convictions. It was our purpose to fight not only bravely and with determination, but also fairly and with mercy toward the weak and helpless. "American relief" has acquired as much significance as a slogan of American progress as once attached to the cry of "westward ho." The average citizen knows and loves Mr. Hoover's principal assistants either in Paris or at the head of the organization and a few clerical assistants, the American Relief in Europe was the Army and its individual enlisted men who constituted the missions and agencies which distributed American relief. In addition, there was a vast amount of work, such as providing convey and courier service and unloading supplies, performed directly by the American Expeditionary Force itself. In other words, the American relief was merely one of the activities of the American Expeditionary Force. The American people, in any organization of Army officers and enlisted men carrying on the work of American civilization as pioneers.

Development of Commercial Enterprises

We are obviously on the eve of perhaps the greatest period of construction and progress that we have yet known. The War Department is already playing its accustomed rôle of constructive pioneering. I have mentioned the work of the military engineers. There is a very significant influence in standardization of manufacture exerted by the department in its planning for the mobilization of industries for war. Military experiments in design of tanks and artillery tractors were influential in stimulating the development of the new tractor industry. The pioneering activities of our Air Service are preparing the way for an aviation industry in stimulating manufacture and in projecting or advising on projects for airways and communication facilities for air traffic. In the near future aerial activity will play a great part in our national existence. The aerial development of the Army is not only for the purpose of war preparation but an extension of the service to commercial life. The department encourages the constructive development of aeronautics and better airplanes and is furnishing every aid practicable within appropriations to develop air lines which will be commercial commercially. If this were not the case, it is possible that there would be years of delay in obtaining any commercial results worth mentioning. I have no doubt that within the next 10 years we will see many
air routes established and doing a prosperous business; in fact, it would not be an extreme statement to make that the development will be comparable to that of the automobile.

Development of the Radio

The Army has likewise had a pioneering part in the development of the radio. Although the primary task of the Signal Corps was the modification of commercial apparatus for military purposes, its research and development experts are continually presenting to the scientific world solutions of vexing problems. Among these may be mentioned the loop, which superseded the cumbersome outside antennas, and which led the way to the radio compass, and General Squier's remarkable invention, which applies radio principles to commercial telephone systems and makes possible the utilization of existing telephone, telegraph and even power lines for the sending of private messages and for broadcasting and reception. The Army has today 72 radio stations comprising its radio nets installed to cover the United States. Last month these handled official messages employing more than 230,000 words and accordingly saved the Government a considerable sum of money that would otherwise have been spent on these communications. Does the average citizen realize that the Signal Corps today operates approximately 400 telephone systems, half of which are owned by the Government? It is accordingly a telephone organization second only to the Bell telephone system, which is, of course, the largest telephone organization on the West Coast? "Just what does he ask, "is the value to the country of these systems?"

To answer this I look back first to the construction of the transcontinental railroads and point out that the construction of the Army in development work was always followed by elaboration through civilian activities and that it was the elaboration of what the Army began that gave us what we call our civilization today. One of the reasons for my emphasis on the expansion of our civilian system was given by the Signal Corps of the Army just after the Civil War. As late as 1877 there were more than 8,000 miles of telegraph service throughout the South operated by the Signal Corps as an outcome of their service in the war. These wires provided the framework for building up the telegraph service in the South that exists today, just as the activities of the Army in early days resulted in settlements which later became great cities, such as Pittsburgh on the site of Fort Pitt and Chicago on the site of Fort Dearborn. So we can now look back with pride to the expansion of our communication system that they provide us with an enormous addition to our other available means of communication and with full expectation that in our coming development these means will prove of inestimable value.

The invention of the Chief Signal Officer of the Army in applying radio principles to commercial telephone and telegraph systems has greatly multiplied the capacity of existing telephone and telegraph lines and increased many fold our facilities for electrical communication. By utilizing the principle embodied in this invention, it is now possible to send simultaneously over the same line a number of telegraphic messages and at the same time carry plagues. The system is now in actual practical use by the large commercial companies, and it is present practice to send eight two-way telephone messages and three two-way telephone channels, these being in addition to the messages transmitted by the usual practices. It might be remembered that this new system is just coming into use and its full possibilities have not as yet been worked out, but it is fairly certain that this method offers tremendous possibilities for increasing our facilities for communication. This principle is particularly adapted for long-distance telephone transmission, and in all long-distance telephone communication this system is now used to a very large extent. The old-fashioned telephone method is quickly becoming obsolete, and the newer methods employing radio principles are rapidly taking their place.

It is to be noted that by the utilization of the same principles it is possible to transmit telephone and telegraph messages over power transmission lines, and these are being now utilized for broadcasting. As a result of experiments carried on in the Signal Corps a new method of broadcasting, which consists of transmitting speech or music over the lighting circuits, is now being introduced, and it is hoped that before very long it will be possible to receive broadcasted material, whatever its character, by connecting a small suitable receiving set to the light sockets in your homes.

I am particularly interested to our Army has actually been a veritable "vanguard of American civilization" just as the Roman armies left behind many of the most imperishable monuments to that earlier Republic.

Utilization of War Gases

I proceed to other little known activities, such as those of the Chemical Warfare Service. Does the average citizen know that the deadly mustard gas, as well as several other war gases, is being employed experimentally with great hopes of its proving a valuable retardant in the treatment of tuberculosis?

"Why," the citizen exclaims, "I thought that war gases caused respiratory diseases."

I inform him that, on the contrary, it has been established that they tend to prevent such diseases. Among the employees of large war-gas factories influenza and similar diseases were practically unknown during the course of the plague that swept our country during the World War. Extensive arrangements are being made in the laboratories of the Chemical Warfare Service to conduct research into the fields of medical employment of war gases and by-products.

One of the greatest problems of modern sanitation is that of effective and safe fumigation. It is necessary to wage continuous war against the rats and other vermin which result from the cleanup. As late as recently, in the fumigation of a ship in San Francisco, several men were killed and many injured by the fumes of hydrocyanic acid. The Chemical Warfare Service offered their cooperation and have already given promise of solving this problem. Tear gas was finally selected by them as the best possibility for use in fumigation. Near the end of October a test was made with a concentration of one-eighth the strength which would injure human life. Several officers spent the night in a room adjoining the kitchen which was selected for the test. The gas was projected into the kitchen in the evening, and the officers in the next room reported that they were not inconvenienced thereby. In the morning it was discovered that every mouse, fly, cockroach, and other insect was dead. The gas was then projected into a large warehouse holding hundreds of thousands of rats, mice, bats, and other vermin. The experiment was repeated in fumigating a ship, and the results were beyond expectations. The Public Health Service is enthusiastic about this work and the possibilities seem limitless.

Tear gases have also been demonstrated as very effective in employment against barricaded criminals and in attempted jail deliveries and other riotous actions. The gas mask is becoming very valuable for use in mining activities. The Chemical Warfare Service has produced the only substance suitable for protection of miners against the deadly carbon-monoxide gas. In their development of gas masks and suitable materials therefor the scientists of the Chemical Warfare Service have made another valuable contribution to the industries in the form of a very active charcoal which is useful in manufacturing gasoline from natural gas and coal-tar products.

It is becoming recognized that any effective control of the boil weevil and similar pests must come from the adaptation of these poisonous compounds. The Air Service is cooperating in experiments by spraying the fields and orchards with the vapors. Experiments are being conducted for the purpose of retarding the development of war gases and by-products. The Air Service of the Chemical Warfare Service is cooperating with the Navy Department in hopes of producing a non-fouling paint and thereby avoiding the results of barnacles which often sink a ship. The Air Service has recently made some experiments with the hope of destroying the toreado and limnoria, which bore into submerged timbers in our southern waters. Finally, in addition to all of these constructive activities, one must not fail to note that the Chemical Warfare Service has led the way to the foundation of an American dye industry that should one day be one of our most valued assets.
The Development of the Steel Industry

Do you know that the Army started our steel industry, guided it through its early development, and, in cooperation with the Navy Department, stimulated it throughout its expansion to the present gigantic proportions? Our Infantry was an outgrowth of the activities of the War Department; in fact, the latter once consisted of three parts which are now the War Department proper, the Navy Department, and the Interior Department. The Bureau of Public Roads grew out of the work of the Corps of Engineers. The Signal Corps can be said to have played a major part in development of the telegraph industries. The development of our Life-Saving Service was possible largely through the cooperation of hundreds of miles of governmental telegraph lines, operated by the Signal Corps. The Lighthouse Service that plays such an important part in coastline and terminal- ocean traffic, was built up by the Army and turned over to civil agencies only after its success was assured. In all of these ways the Army has proved that it can lead the way as a pioneer not only through forests and over prairies but also through the fields of science and industry.

The dominating influences in building up "steel" have been the provision of markets, the increasing adaptation in employment, and the specifications for design. The Army was the original market for steel products—offered an ever greater field for the use of steel—and led the entire country in specifications for design. High-duty steel, as we know it today, dates from the Civil War, when the Army called for superior quality in gun metal. In 1860 the requirements for high-carbon steel in long guns were fully 50 per cent more severe than were the general industrial specifications. The Ordnance Department introduced alloy steel in the manufacture of Army material, and prescribed the use of nickel steel at a time when there were very few commercial uses for nickel steel in the entire country and when only two or three commercial concerns were capable of its manufacture. In 1876 the Bureau of Investigation at the Watertown Arsenal established a program of investigation and built an emery-testing machine that was the largest in the world—this machine is still in daily use, and was only recently superseded in its rank as the largest in the world. The work of Watertown Arsenal was truly pioneer work in this country, and it has a tremendous influence in stimulating similar investigators on the part of technical schools and colleges. Until the creation of the Bureau of Standards, the arsenal was recognized leader in metallurgical study and it is even today doing very original work which must have a noteworthy effect in the future.

Army Led in Interchangeable Parts

When the American citizen takes his family out for a day in the country he frequently meets with a mishap, perhaps breaking a part of his automobile. Does he seek a country blacksmith or a machine shop to repair his Ford? Not he. Proceeding to the nearest garage he finds a stock of spare parts which meet his wants and enable him to go "flopping" off in short order. He might, if he is scientifically inclined, utter a brief prayer to the inventor of "interchangeable manufacture" which produces spare parts. If he were historically inclined as well he could look back over a century and discover that he owes this service, not only through forests and over prairies but also through the Mississippi River rose to the point of threatening to interfere with our navigable waterways, with the growth of our national forests, and with the public enjoyment of our national parks. In the second year of the power commission it had to study projects for proposed developments of water power in excess of 20,000,000 horsepower, or more than twice the existing power development of this country and more than the combined potential resources of Norway, Sweden, Finland, and the Arctic and Baltic drainages of Russia—the principal water power region of Europe. In two years its engineers have had to study projects for development greater than the resources of France and Italy and six times the aggregate of projects for development of resources under Federal control in the preceding 20 years. The greater part of this work of examination and study has fallen to the War Department, and the Chief Engineer and his assistants and the chief counsel of the power commission are officers of the Regular Army.

The Potential Value of the Army

Does the citizen know that the Army organized the Weather Bureau and that during Army control the Weather Bureau gave out information that was of tremendous interest throughout the scientific world? Does he know that the Army has played a prominent part in diverting our explosives production into fields that offer great hopes of building up a great American nitrate industry which would be of inestimable benefit to the farmer? Does he know what the Army has done in helping to conserve our resources? The Army Engineers have led us in flood prevention and have assisted greatly in forest protection. At the present time the Air Service is cooperating, as much as funds will permit, in the work of the Bureau of Agriculture concerning forest-fire prevention. In the past year over 100,000 square miles of forest lands were covered by fliers. Of 1,248 fires occurring in the national preserves of California in the past year, the aerial patrols reported 664 and were first to report 376. "Why must such products come from the Army?" I am asked, "Why cannot some other agency do all this work?"

I reply that neither the Government nor any individuals could afford to maintain a great pioneer organization with no other functions. Such benefits can come only from the work of an organized and trained public force which can produce them virtually as by-products and still perform its primary tasks. About the middle of last April the Mississippi River rose to the point of threatening disaster to thousands of families along its banks. Members of Congress from that region visited the War Department for advice, and varying degrees of concern were manifested by officials of the States affected. It was apparent that there was no organization other than the Army that could drop its routine tasks and handle such an emergency. The War Department had experienced this situation in the past and had prepared regulations to govern the forces which might have to operate under these conditions. It was necessary only to put the existing machinery into motion. The governors of four States were notified that certain military authorities would be assigned districts in their States. Military authorities were informed of depots which would furnish supplies. Commanding generals of corps areas were advised of the situation, and they made arrangements for utilizing troops that might be necessary. Our fears were not realized. The danger passed. There was an excellent
illustration, however, of the potential value of an organization like ours.

This potential power has unfortunately been called upon many times, as in Canada, which is protected by its neighbors to the north. If the San Francisco earthquake and fire in 1906, it was the Army that took charge of the disaster and administered the forces of order. In the Galveston disaster of 1915 the Army made a record for heroism. Similarly the constructive value of the War Department was felt in the Mount Pelee disaster and during the Ohio and Mississippi floods of 1912.

In the coal fields of West Virginia, a situation arose that promised untold difficulties for the industry and for the community. The subsidence was so sudden that few citizens were able to appreciate the fact that the Army took control and insisted that the rights of the public must be maintained against the actions of any particular class or classes. In a very short time they assured peace without making a single aggressive move and without antagonizing any party to the pending disputes. It is scarcely too much to state that these incidents alone justify the investments which we have made in a national force organized and trained for the national defense against outlawry. It is amazing to discover how little our citizens understand of this dramatic history of purely civic accomplishment. It is so amazing to most of them that they do not learn the facts.

Army School

Does the citizen realize that the Army must train thousands of young men not only for war but also in vocational and educational features? We have a continuous school problem and a normal provision for training men in the following occupations:

- Horseshoeing, tractor drivers, dynamo tenders, steam-engine tenders, firemen, engineers, carpenters of all kinds, concrete workers, photographers, lithographers, painters, plumbers, pipe fitters, welders, printers, linemen, radio operators, telephone operators, switchboard operators, auto mechanics, chauffeurs, battery repairmen, tire repairers, ignition and confectioners, bakers, tailors, butchers, clerks, stenographers, typists, bookkeepers, instrument repairers, machinists, foundry men, pattern makers, barbers, pharmacists, assistants, X-ray operators, buglers, bandmasters, surveyors, topographers, highway construction men, bridge builders, draftsmen, interior wiremen, riggers, radio electricians, telephone electricians, telegraph operators, motion-picture operators, cooks, cargadores, mechanics, wagon masters, wheelwrights, shoemakers, saddlers, laundymen, and storekeepers.

Officers must pay the Army, keep accounts for the Army, feed the Army, give spiritual guidance for the Army, and in a word administer the Army according to the most civilized concept of human administration. Every officer must understand the military law.

Military Jurisprudence

Incidentally, in the face of all criticism which has been leveled at our system of military jurisprudence, it has been pronounced excellent by some of our best civil lawyers. The citizen sometimes asks me about the hard-boiled methods of prison and warden management. I invite his attention to various comments which indicate that our military prisons have donated many valuable contributions to the science and art of prison management. Everything possible is done to humanize our prisons and to develop the unfortunate occupants so that they can practice trades upon release and, even more important, so that their criminal tendencies might be lessened or completely eradicated. In each of our prisons there is a board of psychiatry and sociology which has for its purpose to modernize our treatment of this problem. Does the citizen realize all this?

Relative Strength of Our Army

I had occasion to remark a recent editorial in which surprise was manifested at the activity of the officials of the War Department in appealing for a minimum standing army (150,000-130,000). The editorial remarked that we should follow the sensible policy of other American countries in spending our money for peace organizations instead of for warlike preparation. I wondered if he knew what policy he was advocating? The United States maintains a smaller per capita strength of Army than that of any other American country except those protected by its neighbors, such as the British Empire. If we followed the average policy of the Americas we should maintain a Regular Army of 200,000. If Canada is excluded as a part of an Empire whose total strength exceeds 300,000, we should raise this figure to 250,000. If we determine our policy upon a basis of national wealth the figure would be still higher. If we follow the average British policy, we should have approximately a million men constantly under arms. The editor, no doubt, didn't know all of this. It is to the advantage of all of us that we know these facts about the country in which we live, or else that we do not distort facts for purposes of argument.

I mentioned that Canada is maintaining a smaller army than we are. She is, however, manifesting an interest in military preparation in another direction than can be gauged by one brief comparison. During the past summer we trained about 22,000 men in our citizens' training camps. Canada trained about 100,000 men in her. With less than one-tenth our population she is training five times as many citizens for national defense. Her "sensible policy" of pacification (to quote the editor) involves fifty times the intensity of effort that we exert in preparation for defense. What a striking contrast this is. Canada evidently believes in the principle expressed by Thomas Jefferson: "None but an armed nation can discharge with a standing army."

"But how does Canada afford this training?" inquires my curious prospect.

I might reply that it is by cutting down on her use of chewing gum. We are a nation of gum chewers. In a year we spend three times as much for "chewing gum and candy" as we spend for military preparation. Canada does in words, for the reduction of military forces? Doesn't this country set an example in practice, as she does in words, for the reduction of military forces?" I reply that although we are one of the greatest powers, our Army stands sixteenth in the list of the armies of the world. If we had taken the average of military strengths of the powers in that conference, we should raise our strength to about 450,000 men. If we reduced our strength upon the list had, roughly, 1,000,000 men. Yet we reduced recently to a strength of 125,000 men.

"Oh," is the reply, "but we could quickly throw 4,000,- 000 men into the field."

Really, the Army can not take the field without materials and supplies. The proceedings of the conference would have shown that whereas Great Britain was prepared to throw a force of 6,000,000 men into immediate service, France more than 5,000,000, Italy more than 3,000,000, and Japan more than 1,000,000, we could with difficulty outfit an army of a bare million, even if these were available, officered and freshly trained for service.

"No, my friend," I reply, "there need be no reason to fear that we might fail to lead the way to reduction. By every conceivable method of comparison you can find that we have the example in limitation by a very pronounced inferiority to the strength of any civilized power of great importance in the world." The greatest fear is that we might lead too far and tempt other nations before they are prepared for the trust which reduction implies.

The Cost of Protection

The response sometimes comes, "Would not our trust cause other nations to disarm rather than to take the aggressive?"

I reply that I would like to believe it. There are few exceptions to the general rule that all peoples desire peace and derry war. No country has made more determined
efforts to remove possible causes of conflict and to lighten burdens of preparedness. For further developments we must, however, wait until the world follows the example already set. We damage other peoples by placing too much trust in them—a trust that we cannot even place in our own population.

“What do you mean, Mr. Secretary, by saying that we cannot trust our own people?”

I reply that we cannot bare our own institutions to the citizens of the country—that we must provide a guard that protects not only the institutions, but also unfortunate individuals against their own worst tendencies, which might lead them to crimes destructive alike to the public weal and to their own happiness. The 1920 census discloses that there were in this country at least 32,514 marshals, sheriffs, and detectives; 82,514 policemen; and 115,583 watchmen, guards, and doorkeepers—a total of 229,981 employed for protection against dangerous impulses. Added to this there were 50,171 firemen, making a total of 280,152 engaged in protection of our institutions against the elements which force us to insure our private affairs. Yet we maintain less than half the number as our share of the police of the world—against peoples at most 280,152 engaged in protection of our institutions against the elements which force us to insure our private affairs. Yet we maintain less than half the number as our share of the police of the world. For further developments we cannot trust our own people.

I observe that there has actually been an average of one call every year and a half, as follows:

1775. The Revolution.
1776. Wyoming Valley insurrection.
1776. Shays’s rebellion.
1790. Northwest Indian War.
1791. Whiskey insurrection.
1798. War with France.
1799. Fries’s rebellion.
1801. Tripolitan War.
1806. Burr conspiracy.
1806. Sabine expedition.
1807. Cheyennes and Nebrasca.
1808. Lake Champlain affair.
1811. Northwest Indian War.
1812. Great Britain.
1812. Seminole War.
1813. Pooria Indians.
1813. Creek Indians.
1817. Second Seminole.
1819. Yellowstones expedition.
1827. Lefere Indians.
1831. Sea and Fox Indians.
1832. Blackhawk War.
1832. South Carolina nullification.
1835. Cherokee War.
1834. Pawnee Indians.
1835. Third Seminole.
1836. Second Creek Indians.
1838. Osage Indians.
1838. Mohawk Indian War.
1838. Mormon.
1838. New York-Canada frontier.
1844. Conquering of Mexico expedition.
1846. Mexican War.
1846. New Mexican expedition.
1848. Cayuse War.
1849. Navajo.
1849. Comanche Indians.
1850. Pitt River expedition (California).
1851. Yuma expedition.
1851. Utah Indian.
1855. Snake Indians.
1859. Sioux Indians.
1859. Yakima expedition.
1855. Cheyenne Indians.
1855. Florida War (Seminole).
1855. Kansas border troubles.
1857. Gila expedition.
1857. Sioux Indians.
1857. Mountain Meadow massacre.
1857. Utah expedition.
1858. Northern Indian expedition.
1858. Puget Sound expedition.
1858. Spokane Indian troubles.
1858. Navajo expedition.
1859. Wichita expedition.
1859. Colorado River expedition.
1859. Pecos expedition.
1859. Antelope Hills expedition.
1859. Bear River expedition.
1859. San Juan imbroglio.
1859. John Brown raid.
1859. Cortina troubles.
1860. Pat Ut expedition.
1860. Carson Valley expedition.
1860. Navajo expedition.
1861. Apache Indians.
1861. Civil War.
1861. New Mexico Massacres (Minn.).
1862. Sioux Indians.
1862. Cheyenne War.
1865. Northwestern Indian War.
1865. Fenian raid.
1867. Messalen Border Indian War.
1868. Canadian River expedition.
1871. Yellowstone expedition.
1871. Fenian troubles.
1872. Yellowstone expedition.
1872. Modoc campaign.
1873. Yellowstone expedition.
1874. Indian Territory War.
1874. Sioux War.
1874. Black Hills War.
1875. Nevada expedition.
1876. Sioux War.
1876. Power River expedition.
1876. Big Horn expedition.
1876. Sioux War.
1877. Nez Perces campaign.
1878. Ute campaign.
1880. Snake Indian.
1889. Sioux.
1891. Mexican Border (i.e. New Mexico)
1895. Bannock Indian trouble.
1898. Spanish American War.
1898. Philippine insulation.
1900. Philippine insurrection.
1912. Philippine expedition.
1913. Haitian and San Domingo.
1914. Vera Cruz.
1917. Germany.