

WAR AWAKENS U. S. NAVY TO IMPORTANCE OF AIRCRAFT

Extensive Plans Already in Progress for Development of Aviation Branch of the Service

THE war in Europe has proved the value of aircraft as military weapons. The public has become accustomed to their operations in connection with land forces that they are now regarded as commonplace, to be as much taken for granted as foot, horse and artillery.

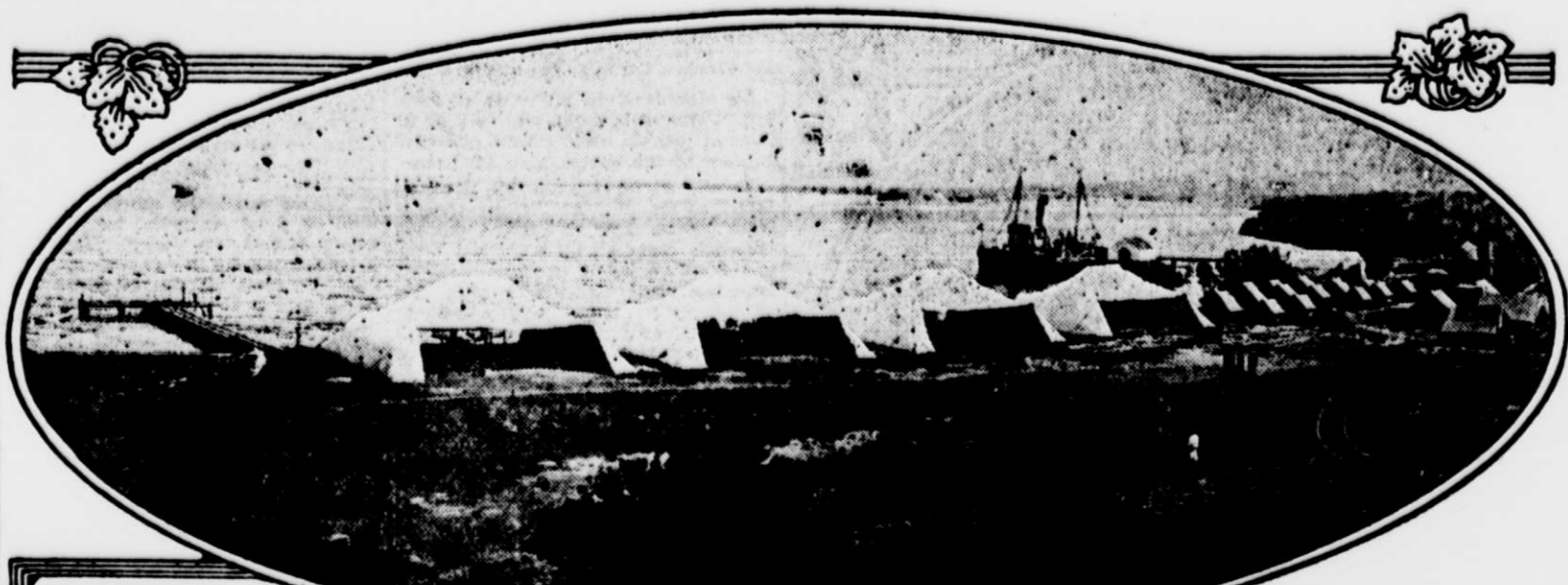
There is no indication, however, that any of the belligerents has yet realized the full possibilities of aircraft in connection with naval operations. This fact is probably due in part to the peculiar situation existing between the two chief naval powers at war, England and Germany, whose forces have been kept apart by reason of the overwhelming superiority of the British fleet as regards numbers.

Experiments and studies made in this country have satisfied American naval officers concerned with the development of aviation that aircraft are destined to play a much more important part in connection with naval warfare than has yet been assigned to them by the belligerents in the

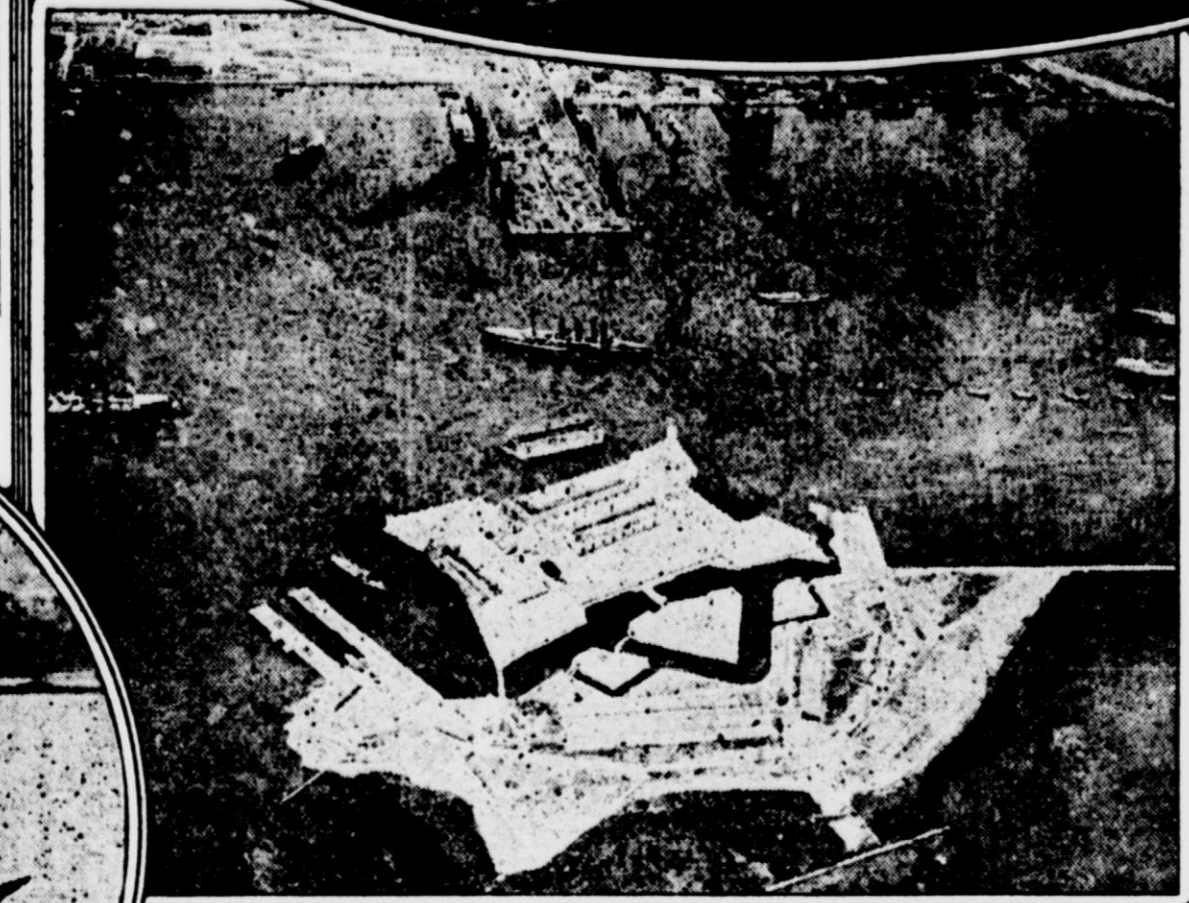
tions, now under the direction of Capt. Mark L. Bristol, who holds the new post of director of naval aeronautics. And that is why Capt. Bristol is at present concentrating all his efforts upon securing the construction in this country of aeroplanes which shall fulfil the military requirements foreseen for such craft.

An order for aeroplanes distributed among American manufacturers recently marked a large advance in the type of aeroplanes built in America and it is confidently believed that under the inspiration of the Government's interest in the development of a more powerful and more efficient machine rapid improvement will be noted in aeroplanes here. There is no doubt at the Navy Department that important work awaits the improved machine as soon as it can be developed.

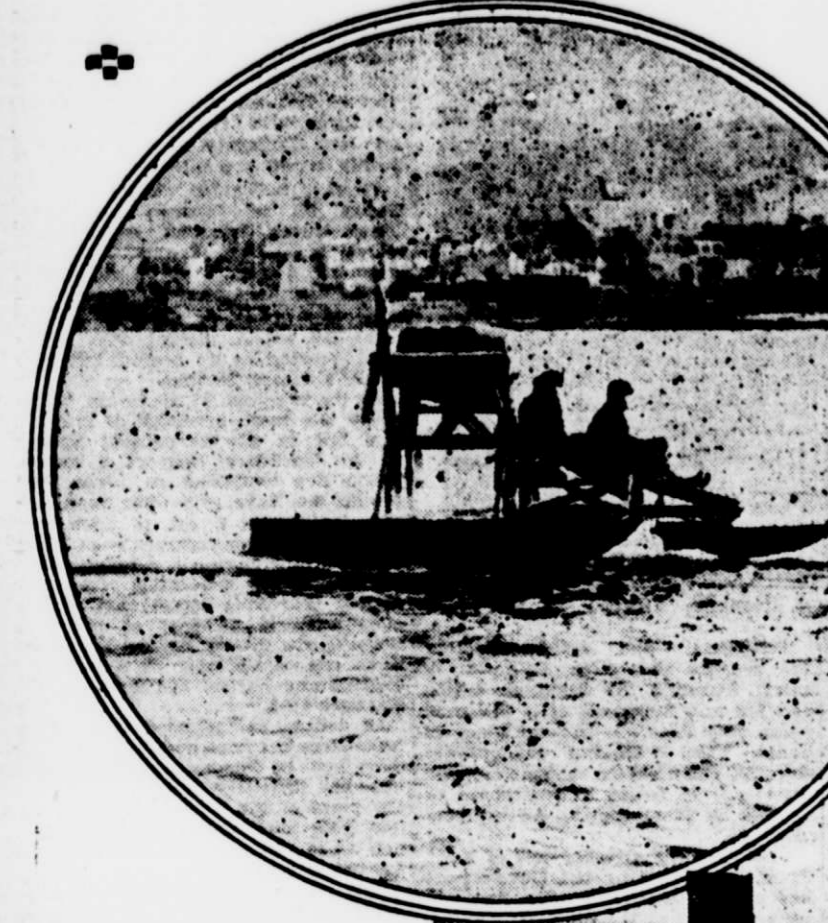
The grand plan under which this initial work of design improvement is being done calls for making aircraft an integral part of fleet organization quite as much as the existing scouts, destroyers and submarines. This is where the American theory differs from what has been done in Europe during the war. There the aircraft have been treated as more or less incidental factors rather than as a part of naval organization. The plans



U. S. fleet base and aviation camp at Guantanamo Bay, Cuba.



Warships, fort and harbor works at Vera Cruz as photographed by an air scout.



A glider for testing aeroplane engines and propellers.

present war. The aviation forces of the United States navy are now in process of development toward an objective which in its completeness and scope far surpasses anything yet achieved by any of the forces at war. Though the United States navy, like the army, is notably deficient in the material and personnel of aviation, there is reason to believe that the theory of military aviation, particularly in relation to naval operations, is being more highly developed in this country than in Europe.

The first objective of the navy in building up an aviation corps which shall be capable of doing what American officers demand is an aeroplane which can operate with the fleet. The second demand is that this aeroplane shall be capable of taking command of the air, once it begins operations. That is, the navy is now trying to lead American aircraft manufacturers to the construction of an aeroplane with so powerful an engine as to permit of high speed and large radius of action, so reliable as to make long sustained operations a probability instead of merely a possibility, and so well armed that it can crush aside enemy aircraft which may attempt to interfere with its operations.

It is one of the paradoxes of the development of aviation that when the aeroplane first appeared in the world it was instantly hailed as an instrument which would revolutionize warfare, yet not for years was it assigned to its proper place in the art of war. The conflict in Europe has demonstrated that aircraft have a military value much greater than was suspected by military men generally. It has also been proved that the aeroplane must take its place as an auxiliary arm and must not be regarded as changing in any way the basic rules or conditions of warfare.

The opposing commanders in Europe have found the air scout of immense value in detecting the movements of the enemy. They have also found that the net result of the use of aircraft has been partly negative, in that their relatively equal employment by both sides has rendered impossible movements of large bodies of troops and surprise attacks in force.

This, American officers declare, is the great lesson of the war in relation to aircraft, proving that the aeroplane is at present but an auxiliary which must be used only in accordance with the same principles that govern the use of cavalry or other mobile forces sent out in advance of the main contending bodies. It proves, they declare, that the full advantage of aircraft will be gained only by that commander who has at his disposal an air force which is not only able to take the air and scout but which can also drive from the air the enemy's scout and prevent him from obtaining the information he desires. In other words, under modern conditions supremacy in the air is essential to complete success on land and sea, and aircraft must henceforth be regarded in the light of forces rather than as mere messengers.

It is on this theory that the navy is seeking to develop its aviation opera-

developed by Capt. Bristol call for the presence of two or more aeroplanes on board each battleship of the fleet, so that when a capital engagement with the enemy is imminent an air fleet numbering scores of machines will spread out over a far-shored zone covering hundreds of miles.

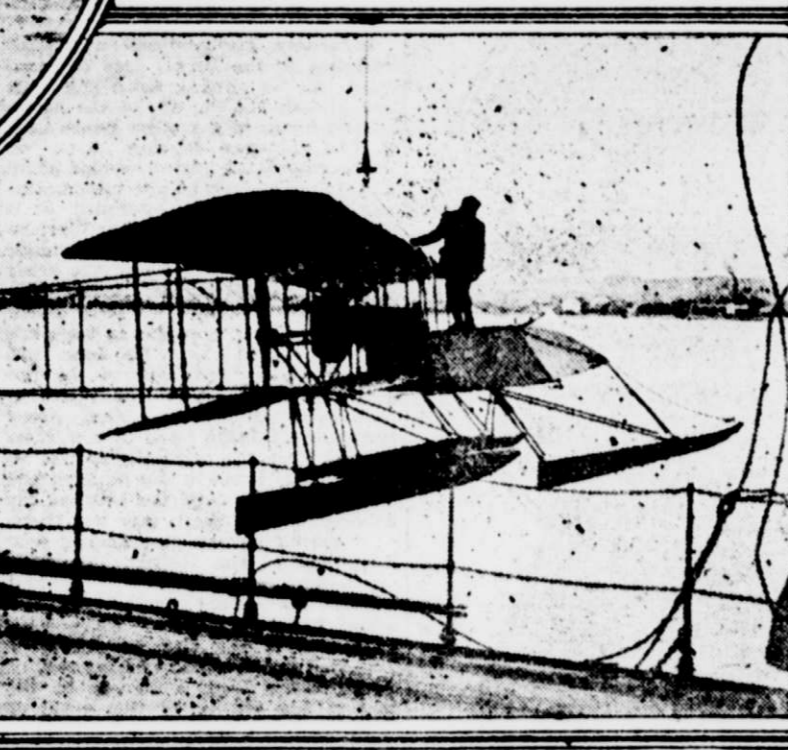
The first task of a battle fleet of course is to locate the enemy. With this as their primary function as aids to the fleet, torpedo boat destroyers are created, their secondary function being the sweeping away of similar craft sent out by the enemy. The aeroplane is to extend this function into the air, its first purpose being to locate the enemy's ships and the second to instantly hail an intruder seeking the home fleet.

For this work the United States navy wants an aeroplane with a radius of action of at least 300 miles, this distance being selected because it is the average distance that a torpedo boat destroyer can make in a night's run in an attempt to locate and attack with torpedoes the opposing fleet. Thus the security of the main fighting unit from secret attack at night will be assured by such an adequate and efficient air fleet as the navy seeks to create.

It is proposed to equip the navy aeroplane with wireless. Thus the enemy fleet once located the aircraft may signal back its position. Long range wireless is not necessary for this purpose, as it is assumed that the destroyers will form an inner protecting circle around the battle fleet, through which a message from air scouts can be relayed to the fleet.

The enemy fleet once found, it will then be the task of the commander in chief to maneuver his fleet into a favorable position for attack. This is likely to be preceded by a series of operations to harass the enemy.

Suppose, for the moment, that the air scout has sighted enemy destroyers. It will then be the duty of the destroyers attached to the home fleet to rush to the position indicated by the report of the air scout and give battle to the enemy destroyers. The more of these picked off the less able will the enemy be either to spy on or



Preparing to launch a seaplane from a battleship.

to attack by night with torpedoes the home fleet. Also, with the enemy destroyers out of the way, the destroyers of the home fleet will have a better opportunity to close in on the enemy at night and try to pick off a battleship or so with their torpedoes.

There is still another use awaiting the type of aeroplane which the United States navy is seeking to develop for cooperation with the battle fleet. American naval officers have come to regard the aircraft as the natural enemy of the submarine, the kindred of naval warfare.

It is an established fact that submarines can best be spotted, either when running on the surface or submerged, by observation from the air. A submarine once located by an aeroplane scout—and it is to be assumed that the next naval war will find submarines accompanying the fleet even on long cruises—its position may be reported back and defensive and offensive operations against it undertaken for the protection of the home fleet.

In this connection it is the plan not only to use destroyers against the submarines, but also to invoke the aid of dirigibles. A dirigible once given the approximate location of a submarine, may proceed to the place indicated and find it again, whether it is running above or beneath the surface. The dirigible is slower than an aeroplane, but it has on the other hand a capacity for hovering over a given spot which an aeroplane lacks.

Thus, American officers believe, the dirigible can be counted on to drop bombs upon submarines. It is believed that with a time fuse on these bombs, insuring an explosion whether they hit the underwater vessel or not, submarines can be destroyed, as they are incapable of withstanding an explosion in the water close to them. In military operations, aeroplanes and dirigibles can cooperate in a similar way, it is believed, to destroy an enemy mine field.

These operations require for their success of course an aeroplane fleet with such fighting qualities that it can prevent enemy aircraft from attacking the dirigible while it is engaged in its bomb dropping. The whole plan of the use of aircraft with the United States navy is dependent upon the first factor, a speedy, powerful aeroplane, with a high degree of fighting ability.

To this end the navy is seeking a new type of anti-aircraft gun. Pres-

ent tendencies are in the direction of a gun which shall operate on the buckshot principle—a shell which shall scatter a deadly fire rather than a single projectile. This problem is being approached by first determining the chief vulnerability of aircraft, and then working out a method of attack best calculated to strike at their inherent weaknesses.

The development of the dirigible in the United States navy is even more backward than that of the aeroplane. There is no uncertainty now about the uses to which either craft is to be put; but American manufacturers are unskilled in the design and construction of dirigibles.

Hills have just been received at the Navy Department for the construction of two dirigibles of an experimental type, the first ever sought by either the army or the navy. A contract for these craft will be awarded soon, and when both naval officers and the constructors have learned the lessons taught by their use others will be ordered of a more advanced type.

It is the Department's plan that the navy and the manufacturer shall proceed hand in hand in the study of the design and use of both types of aircraft, and it is not doubted that eventually this cooperation will bring the desired results. When the dirigible has been realized it will be necessary to provide ships from which they can operate with the fleet. It is the expectation that these floating dirigible hangars will also be the mother ships for aeroplanes as well, carrying supplies and materials for their use and in connection with fleet operations in

Ultimate Objective Is to Put Country Far Ahead of Any European Power in Air Scouting

tacking not enemy vessels but shore batteries.

The aeroplanes were used with the fleet just as they are on land in France and Belgium, to locate the enemy batteries and signal the range to the attacking guns. Naval officers here are of the opinion that the Allies could have used their aeroplanes in some of the ways indicated above, for the location and attack of mines particularly.

In connection with the use of naval forces against land works it is pointed out that had Admiral Sampson had at his disposal off Santiago the kind of air fleet which the navy's present plans contemplate his problem would have been greatly simplified. The accompanying picture, taken by American navy aviators at Vera Cruz last year, shows what air scouts could have discovered in an hour had there been any present with the American fleet off the Cuban coast in 1898.

Besides locating the Spanish fleet it is believed that a large squadron of aircraft could, in flying over Santiago harbor, have dropped bombs in such numbers that some of them would have been sure to strike one or more of the enemy warships. On a land engagement, the allied ships at-

a relatively small space do American naval officers regard the use of aeroplanes against battleships as a practical procedure, yet this was the use which was first proposed for aircraft in connection with naval operations.

It is believed that the office of the American navy under Capt. Bristol, has worked out a rational plan for the use of aircraft in connection with fleet operations. It remains, however, to develop the type of aircraft capable of the performance assigned to it.

Congress last winter manifested a somewhat larger measure of interest in this work of development, so that the indications are that the American manufacturer will find it worth while to strive to attain the type of machine called for. It is admitted that about the only business to which the American manufacturer can look forward is government contracts, and unless Congress provides adequate appropriations the government contracts will fall short of what is required to bring about the perfection of aircraft design that is necessary. There is no doubt that once this phase of the aviation problem is in the hands of American ingenuity can do the rest.

BUSINESS CHANCES IN THE ARGENTINE

Continued from Fourth Page.

ordered. Remember that we once had this South American trade, but lost it through neglect and misrepresentation.

Once more the opportunity is open to us for making money in Argentina. It is up to us to improve this opportunity. The first step is to understand the people—that we learn to trust them, serve them and love them.

Until thirty or forty years ago the population of Argentina was almost entirely of Spanish stock. Then as the pampas were developed there came to be need of laborers, some of whom came from Spain, but more from Italy. The latter have come from all parts of their country, but those from the north of Italy take to farm work, while those from the southern provinces stay in the towns, working about the railroads and wharves.

As in the States the best immigrants are the natives of northern Italy, hard working men who are honest and very economical. Many of them come out for the harvesting weeks of December, January, February and March, returning home to reap their own harvest in the Italian summer and autumn, which is six months later.

The ranch work of catching and taming wild cattle and horses and then of caring for the herds has developed a type of frontiersman similar to the Daniel Boones of our early history and the cowboys of our Western plains. The gaucho, as he is called, is still depended upon to handle the animals. He is an expert horseman, never dismounting from his animal except at night, and then sleeping near it. These also are said to be honest and sturdy people.

The rural population consists of two classes, the rich landholders and the laborers. There seems to be no middle class like our American farmers. When the Argentine colonists came, a century ago, they brought with them the idea of European feudalism, and they took as much land as they wanted, so that the country is one of great estates, the average holding even now being about five square miles. The descendants of these Spanish, English and Irish now hold these great estates.

There is no doubt that Argentina has the best Government of any of the Latin American countries. Theoretically it has one of the very best Governments in the world. There are several features of the Argentine Constitution and methods which could be adopted with great advantage by the people of the United States. This applies not only to government but also to other things.

For instance in addition to numbering the surface street cars, so as to

show quickly the route to those who cannot read Spanish, the interior of the subway is numbered like the buildings in the States, so that it is a very simple but useful plan that could be easily adopted by New York, Philadelphia, Boston and other North American cities.

Although I have been too short a time in any of these countries to pronounce a personal judgment regarding their Governments, I have spoken decidedly as to the Governments of the other Latin American countries because I found opinion as to their instability so unanimous. Chile is the only country for whose Government I have even a good word. Yet statistics suggest that almost needs a moving picture machine to photograph Chile's Ministry. Concerning Argentina, however, I find a great difference of opinion—which, by the way, is very encouraging.

The English, Germans and Spanish in Argentina declare that the country's Government is very unstable and full of craft; yet certain of my own countrymen there tell a better story. Doubtless the Government is extravagant, and sometimes careless, from our point of view. But from their point of view, we are very extravagant along other lines.

Doubtless the Government of Argentina is in the hands of comparatively few people, and is not a democracy. Our South American revolutionaries have seen many revolutions, and may witness more in years to come. On the other hand, as a student of international affairs said to me here in Buenos Ayres yesterday:

"No one death as many people are killed in one revolution as has been killed in your Colorado strike the past year. In fact, we feel that our Government is more stable than yours. Certainly we have shown more self-control regarding foreign affairs. Our South American revolutions are practically bloodless, and do not cost as much nor disturb business as much as do your Presidential elections."

Of course, Argentina is a young country; without doubt the Government is less stable than most people in the United States realize. On the other hand, I am sure that the leaders in Argentina appreciate their faults and dangers as well as do their critics and are making great efforts to eradicate them.

I do not dare to say too much, as I am apt to judge a country by its statistical work, and in its statistical work Argentina is one of the leaders of the world. However, let me say that the real opportunity given me to study the country, most people believe in its Government as well as in its people. Certainly it leads all other Latin American countries and, all things considered, is nearly on a par with our own, excepting in vote-crediting, one of the five American republics which have adopted the federal form of government, the others being the United States of America, the United States of Brazil, the United Mexican States and the United States of Venezuela. All the republics have a similar system of a unitary form of political organization.

The Constitution of the Argentine nation dated from May 1, 1853, and finally sanctioned September 25, 1860, with some later amendments, is the one in force. It provides for the usual three branches of government, legislative, executive and judicial. The legislative power lies in the National Congress, consisting of the Senate and Chamber of Deputies, the former with thirty, the latter with 120 members.

Senators are elected by the Legislatures of the provinces (States) and in the Federal District by a special body of electors; two from each province and two from the Federal District; their term is for nine years, one-third retiring—selection being made by lot—every three years; there is a property qualification attached to the Senatorship. Deputies are elected by direct popular vote, one for every 33,000 inhabitants, for a term of four years, the chamber being renewed by halves every two years.

The President of the republic and the Vice-President are elected directly, as in the United States of America, but for a term of six years, neither being eligible for an immediately succeeding term. The Vice-President is the presiding officer of the Senate. The President has a salary of \$21,000 gold.

In his executive authority he is assisted by a Cabinet of eight Ministers appointed by him to form his Cabinet. These are: Minister of the Interior, Minister of Foreign Affairs, Minister of the Treasury, Minister of Justice and Public Instruction, Minister of War, Minister of Marine, Minister of Agriculture, Minister of Public Works.

There is not so much that is romantic and exciting about the history of this southern republic as was connected with the conquest of Pizarro in Peru. The Spanish navigator Juan de Solis, in search of a passage to the Pacific Ocean, was the first

European to discover Rio de la Plata, in the year 1516. Sebastian Cabot entered the river in 1525 and gave it the name of the Estero del Principe. Pedro de Mendoza founded the city of Buenos Ayres.

The Viceroyalty of La Plata (which including Argentina, Bolivia, Paraguay and Uruguay of to-day) was defined in 1776, its first Viceroy being Pedro de Ceballos, appointed in 1777. The Declaration of Independence by the people of Buenos Ayres was made on May 25, 1810, three great leaders in the movement being Gen. San Martin, Gen. Belgrano and Admiral Brown. A Congress held July 9, 1816, at Tucuman, declared the independence of the "Provincia Unidas del Rio de la Plata" (United Provinces of the La Plata River). In 1860 the country adopted the name by which it is now known, "La Nacion Argentina" (The Argentine Nation).

The bonds of the Argentine Nation should be safe as to principal and interest. It is true that the national debt is large, but this is likewise true of almost every country. Personally I would rather buy good convertible corporation bonds, secured by mortgages on United States property, than the bonds of any nation, not excepting England or France.

I feel that some day there will be a general reorganization of government securities, and that when that day comes the holders of national debt must take some loss. Whether Argentina will be a part of this group, I do not know. On the other hand, I believe that Argentine bonds are better than those of most nations and are a fair risk for those wishing a good yield.

For many reasons the municipal bonds of South American cities are not in favor. They cannot be compared with municipal bonds in the United States. Even the bonds of the Santiago, the capital of Chile, are in their interest payments. Buenos Ayres has an especially large debt which should be readjusted and consolidated at the earliest possible time. In fact I believe that is a great opportunity for bankers to make money by specializing in South American municipal bonds.

BELIEVERS IN SIGNS.

AS a rule New York people are very big game. They are all sorts and kinds of signs, especially when inquiring who does them or why they are there, especially business hours and in business districts.

Two men were discussing this at times admirable trait with different opinions as they stood just west of Broadway on Forty-second street. One said: "I have seen a sign that says 'You a dollar that more than half cent of the passers in whose right path the circle lies will turn out that than cross it.'"

The bet was on and the man drew the circle, making it bold and clear. Then they withdrew, each with a pencil in hand to check the passers. The limit had been set at 100 passing both ways and in the end with the chalked circle still on the number on such a busy street, the man who had bet on the sign was looking for long, and when the limit had been completed the man who had bet on the circle was still looking for long.

"Guess I collect on that," said the man who had bet on the sign, and he crossed it, but the rest of the passers, it is as though it were not there, and some of them did not appear to be looking at it, but others did and gave it a slight nod. "I was not counting on a general proposition," said the man who had bet on the sign, "but nearly right."

FIRST HEAD OF POLICEWOMEN.

MRS. ALICE STEPHENS, who is the first woman to be elected head of the National Congress of Policewomen, was elected at their recent meeting in New York during the National Conference on "Charities and Corrections." Mrs. Stephens, who is a resident of New York, was elected to the position of head of the police women in that city. She is the first woman to be elected head of a police force in any city. She is also the first woman to be elected head of a police force in any city. She is also the first woman to be elected head of a police force in any city.

Tributes of French Poets to America

English Versions by Briggs Davenport

THESE and other poems form part of the contents of the artistic albums presented by French citizens to the American nation through William G. Sharp, its Ambassador at Paris, in grateful recognition of the aid and sympathy which it has offered to France during the present war.

HANDS ACROSS THE SEA.
In vain the mighty waves divide;
Thou on thy distant shores mightest know
The storm in all its fearful pride,
Yet close thine eyes to others' woes.

But no! America would not
Of our rude trial unheeding be;
Of our great heart shares our tragic lot;
Her arms outstretch in sympathy.

Thanks, Sister, for this touch of hand;
Thanks for thine aid in direst hours;
The cock crows; the dawn is bland—
To-morrow's joy be thine and ours!
—Henri de Regnier of the French Academy.

"GOD AND LIBERTY."
'Tis toward your noble land that at this hour
France turns her gaze with secret admiration
Of that resplendent flag, symbolic flower—
The blossomed glory of your matchless nation!

When Franklin to Voltaire his young son brought,
That in him he might bless the new idea
Of human rule, the French sage, rapt in thought,
Cried: "God and Liberty—earth's panacea!"

For ill's political this remedy—
Aye, brothers, 'tis the one solution.
Thus shall endure your lighthouse of the Free,
Thus time defy and revolution.
—Jean Bertheroy.

THE BREATH OF THE BEAST.
Oh, pray, New World, that Gallia Fair
Whom the foul Beast, emergent from his lair,
Would fain defile, may from that worse than death
Escape. For the same infamous breath
That would to France bring endless shame and blight
Bartholomew's Torch would smother of its light!
—Theodore Botrel, songmaker to the armies.

A NEW RESPLENDENT STAR.
As ours, your flag's wide folds,
Bestrewn with silvery stars,
Red blending with the white
In flash of dazzling bars,
And with the blue of the sky,
A beauty has unique,
Like the holiest of all veils,
Prize of Sainte-Veronique,

Which on the Christ's torn brow
Took print of his sweat and blood.
And so your flag, oh, dames,
Brought hither o'er the food,
Has touched of France the face,
Bruised as was that of the Lord,
Yet noble and holy still
Beneath the Vandal's sword!

Under the star-strewn folds
A radiant love is shed—
Effulgence of your deeds,
Like glories of the dead!
And so it is we wish,
When the flag returns with you,
That a new resplendent star
May shine in its stainless blue!
—Robert de Montesquiou.