

receive the full protection of the Cuban law, for it is a principle of international law that private property acquired under one sovereignty will be protected by the succeeding powers.

#### ST. LOUIS AIRSHIP PRIZES.

It has long been known that one of the features of the Louisiana Purchase Exposition is to be an airship contest. Valuable cash prizes have been offered aggregating two hundred thousand dollars. Of this sum one hundred thousand dollars is offered as a grand prize; fifty thousand dollars has been appropriated for minor prizes for airships, balloons, airship motors, kites, etc.; and fifty thousand dollars has been set aside to pay the expenses incident to the competition.

The contest for the one hundred thousand dollar prize is open to all, without limitation as to the power used or the mechanical principles employed. No applicant will be allowed to compete who does not present satisfactory evidence that he has at some time made a flight over at least a mile course and return with a machine similar in principle to that which he proposes to use in the competition. If this rule is enforced Santos-Dumont is almost sure to carry off the prize. No airship will be admitted to the contest for the grand prize which requires any permanent connection with the earth, or which is not absolutely free in its flight after the start is made.

Four minor prizes are offered of the respective value of three thousand five hundred dollars, three thousand dollars, two thousand dollars and one thousand five hundred dollars; these prizes will be awarded to the four competitors who finish nearest the winner of the grand prize. Each of the contestants, however, must have made the full course three times, each time at an average speed of at least ten miles an hour.

The contestants for these various prizes will sail over an L-shaped course, the legs of which are of unequal length. The shorter leg will be in full view of all parts of the exposition grounds. Three captive balloons will mark the course. The starting point will be at the angle formed by the two legs; each aeronaut may sail over the course in any direction he pleases, but he must encircle the captive balloons in opposite directions. The length of the entire course will be not less than 10 miles (16 kilometers) nor more than 15 miles (24 kilometers) reckoned in an air line from center to center of the captive balloons.

The grand prize of one hundred thousand dollars is to be awarded to the competitor whose average speed during his three fastest trips around the course is the greatest. The competitor at any trial may pass over the course, without stopping, as many times as he desires in a continuous flight, in which case his time will be the average time in which he covers the full course. Such a journey counts, however, as but one trip. The average time made on each of the three trips required must be at the rate of at least 20 miles an hour, including the time consumed in starting and landing.

No exact date has been set for the contest; but it has been decided that the competition must take place between the first day of June and the thirtieth day of September, 1904. The specific weeks for the trials will later be determined by an international jury. Each competitor is to make at least one trial within each of these weeks; but he is at liberty to choose whatever days the exposition gates are open to the public. He must announce the date of his trial sufficiently in advance to permit publication in the morning papers.

A prize of two thousand five hundred dollars is offered for the flying machine, not carrying an operator, which will make a straightaway run of a mile and return to approximately the starting point in the shortest time. Besides its appurtenances, the machine must carry a load of ten pounds. A special course has been laid out for this contest.

A prize of two thousand dollars is offered for the gliding machine, mounted by an operator, which will advance in a calm or against the wind at a vertical angle most acute with the horizon. The machine must make at least twenty glides of not less than four hundred feet each. A prize of one thousand dollars is offered for the gliding machine, mounted by an operator, exhibiting the best automatic stability in the wind during at least forty glides of not less than four hundred feet each. The competitors are permitted to provide special appurtenances for starting and landing.

A first prize of two thousand five hundred dollars and a second prize of one thousand dollars are offered for airship motors other than the machine winning the grand prize, having the least weight and the greatest efficiency in proportion to their power. No limitations as to type are imposed. The motor must, however, have a minimum capacity of one brake horse power, and must not exceed the maximum of one hundred brake horse power. The weight of the motor is to include all appurtenances for a run of one hour. It must be so constructed that it can be attached to an apparatus for making a brake test, and a continu-

ous run of ten hours for ascertaining the trustworthiness and durability of the apparatus.

The man who succeeds in driving an airship motor by energy transmitted through space, in the form of electric radiation or any other form of electric energy, will win a prize of three thousand dollars. At the point of reception, and at a distance of at least one thousand feet, the energy must measure one-tenth of a horse power.

Four prizes of five thousand dollars are offered to the aeronauts who attain the greatest altitude, starting from the exposition grounds; who remain longest in the air; who land nearest the Washington Monument in the city of Washington, D. C.; and who travel the longest distance in one flight in any direction. These contests will be open to balloons, airships and all aeronautical vehicles of any type, carrying at least one person.

A competition for kites will also be held, which will be open to all without limitation as to form or dimensions of apparatus. A competitor may present several kites if he so desires. There will be two classes of kite competition, one for an altitude of five hundred feet to be reached with a line of eight hundred feet in length, and one for the greatest height attained by a single kite flying at the end of a line not less than one mile in length.

In the competition with eight hundred feet of line, three prizes are offered having the respective value of five hundred dollars, three hundred dollars and two hundred dollars. In the competition for height, a first prize of eight hundred dollars, a second prize of five hundred dollars, and a third prize of two hundred dollars are offered. The contests will be each two hours in duration.

The general regulations applying to the aeronautical contests state that hot-air balloons are to be excluded. The exposition will provide a suitable inclosure for the aeronautical grounds, and will defray all necessary operating expenses. Each competitor must provide any special structure or apparatus at his own expense. No competitor will be allowed to furnish his own fuel or manufacture his own gas. The exposition will provide at cost price all gas or fuel.

#### THE MEERSCHAUM INDUSTRY OF TURKEY.

The British Foreign Office has issued a report upon the meerschaum mining industry of Constantinople. This product which is extensively utilized for the manufacture of pipes is almost entirely confined to Turkey. The meerschaum can be mined by any person at Sari-sou, Sepetdje, Gheikli, and Menlou, on payment of five piastres to the Administration of Mines—the cost of a permit. The mines of Sari-sou are situated at a distance of about seventeen miles to the east of Eskichehir. The pit at Sari-sou was opened twenty years ago, but to-day there are 8000 mines opened, of which, however, only 2000 are worked, the remainder having been abandoned. Some 4000 miners work these mines, and every Friday a market is held at which they dispose of the blocks of meerschaum they have extracted during the week. For the accommodation of the workmen some 1000 huts have been erected.

At Sepetdje, about eighteen miles to the northeast of Eskichehir, there are some 20,000 pits in a space of six miles, of which only 150 are worked, all the others being exhausted. It is said that these mines were opened 1000 years ago, which is not incredible, as it is well known that magnesia was formerly used for many purposes, other than the fabrication of pipes; moreover, fuller's earth used to be worked on a vast scale by the ancients. The meerschaum mines are worked by some 500 miners, who live in the surrounding villages. At Gheikli, in the neighborhood of Sepetdje, there are 3000 pits, of which only 100 are worked, giving employment of 400 miners.

The only place where the Administration of Mines authorized meerschaum to be extracted is Menlou, and here there are only twenty pits actually worked by 100 workmen. The working of these meerschaum deposits, called the Eskichehir, mines which formerly were actively worked, is reduced to 1770 pits, giving employment to some 5000 miners, the greater proportion of whom are Kurds and Persians. These deposits are worked on the following primitive systems: A foreman or ganger, having from two to fifteen men under his supervision, having pegged out a piece of ground, generally a meter wide, a pit is sunk until a red, clayey earth, which is the first sign of the existence of magnesia, is reached. Sometimes this is reached at a few meters from the surface, but as a rule the miners have to dig down some 20 meters, and often 40 and even up to 60 meters, before reaching the red earth, wherein the meerschaum is disseminated in kidney and other irregular forms. The volume of these blocks seldom exceeds 30 to 40 cubic centimeters, the greater part of them being the size of a walnut, or an apple. On reaching the gangue containing the blocks of magnesia, the miners drive horizontal shafts through the red clay. This, however, is no easy matter, as they cannot detach or pick off more than 50

grammes of the clay at a stroke. Some of these galleries are no less than a quarter of a mile in length, and it sometimes happens that owing to these being pierced at random different gangs meet underground. They work night and day, the galleries being lighted with petroleum. After a certain quantity of blocks have been extracted, the meerschaum still enveloped in its gangue is drawn out of the pit, and stacked in the miners' barracks. These blocks are bought by the manufacturers of Eskichehir in job lots every Friday, and there are some 150 persons who regularly attend these markets. The meerschaum is then taken to Eskichehir, where the blocks are cleaned, the operation consisting of scraping and cutting the blocks with a sharp instrument or knife, the meerschaum being still soft and easily cut into any shape or form. Over 1100 persons are occupied in cleaning and shaping these blocks, which, after being thoroughly cleaned, are separated into four classes, according to size and quality. These blocks being ready for sale, a bargain is struck between the pipe manufacturers and the commission agents and merchants at Eskichehir, of whom there are about a dozen. The latter then pack the blocks of these four classes with very great care into boxes of equal size, each block being wrapped in cotton to avoid any friction or shock between the pieces. The actual annual output of these mines varies from 120 to 150 tons. The Eskichehir meerschaum is very highly prized in Europe on account of its superior quality, and these deposits, notwithstanding that they have been worked for centuries, are still considered to be inexhaustible.

#### SHAPIRA THE PHILOLOGICAL FORGER.

The recently published biography of Sir Walter Besant contains an interesting anecdote of Shapira, who may well be regarded as the prince of philological impostors. Shapira was a Polish Jew, who had been converted to Christianity but not to Christian honesty. Many years ago he visited Sir Walter Besant and submitted to him a document which he said refuted every theory held by modern theological students. Shapira was a good actor. At first he would tell nothing of the discovery. Then, after much hard pressing he confided to Sir Walter with apparent reluctance that the document was nothing less than a contemporary copy of the book of Deuteronomy written on parchment. Hesitatingly Shapira exhibited a piece of his precious manuscript. It was written in the Phœnician characters of the Moabite Stone in fine, black ink and was still bright and legible after three thousand years.

Shapira fabled interestingly of his wonderful find. He told how the manuscript had been preserved because it had been deposited in a perfectly dry cave in Moab. Besant urged him to proclaim his discovery to the world. Shapira hesitated; but finally he consented to reveal his discovery to two persons, Dr. Ginsburg, the great Hebrew scholar, and Captain Conder, the Surveyor of Western Palestine. Mr. Besant invited both these gentlemen to visit him on the following day. Dr. Ginsburg thought that the invitation included his friends and brought with him practically the whole British Museum and all the Hebrew scholars in London. Conder also came. Amid much ill-suppressed excitement, Shapira unfolded his manuscript. One of the company remarked that the parchment was strangely modern in appearance and that it spoke well for the art of the time of Moses. When the company separated, a professor of Hebrew remarked, "This is one of the few things that could not be a forgery and a fraud."

William Simpson, of the Illustrated London News, had no great respect for the wily Shapira. Conder quietly observed that "all the points objected to by German critics have vanished in this new and epoch-making trouvaille. The geography is not confused, and Moses does not record his own death." Simpson, who knew all the caves of Moab, and also knew that they were damp and earthy, said, "There is not a dry cave in the country." "Then you think?" questioned Besant. "Precisely," said Simpson.

While the learned professors were hanging over the manuscript for days, and were preparing commentaries, Clement Ganneau came over from Paris to see the document. "I know," he said, "how this manuscript was obtained. The parchment is cut from the margins of Hebrew manuscripts, some of them of considerable antiquity. The writing is that of yesterday."

Ganneau's statement was only too true. Shapira received the manuscript without a single offer to buy it. His mind became unbalanced. His failure and the work of preparing his admirable forgery proved too much for him. He hanged himself.

#### Peary Relief Expedition.

On the afternoon of July 14 the Peary Arctic Club's relief ship "Winward" sailed for the Arctic regions to bring back Lieut. Peary. The "Winward" took on provisions to last her for a year.