in a hurry which made his life a greater risk than that of a calm, philosophical person; it was rather the inherited quality which led to the difference in behavior and, in the case of the philosophical person, gave long life.

External Indications.—There were certain external indications which would give a fair idea of long and short life. It was not in one trait, but in the entire make-up of the individual who stood before the examiner. There were the color, the motions, the measurements, including size of head, which was one of the most certain indications of long or short life, for in the brain lay the great center of power. A person with a head whose diameter at the thin portion of the temporal bones measured five and a half to six inches was almost sure to give a longevity on the father's side of seventy to ninety years or over. If the head measured in front from the external auditory canal to the naso-frontal suture as much as four and three-fourths or five inches, we might be almost sure of long life on the maternal side. A beard which was darker or redder than the hair indicated inheritance from the paternal side; if it were lighter than the hair, the inheritance was probably from the maternal side. The length of the chest, its proportion to the circumference to the height of the individual, and other measurements, were important.

Emphysema and Starvation.—The chairman, Dr. Quimby, quite agreed with Dr. Morris as to the importance of inheritance, but he had been struck with the powerful influence which habit or conditions of life had in the production of certain diseases. He referred especially to emphysema, which he said he had encountered with startling frequency in the dispensaries, and had come to the conclusion that it was due to bad food or insufficient nourishment among poor people. He had found the emphysematous chest repeatedly in persons only twenty-five years of age, or even younger, who visited dispensaries. In striking contrast with this experience, he had not in ten years examined a musician who had emphysema.—*Medical Record.*

Possibilities of Reparative Surgery.

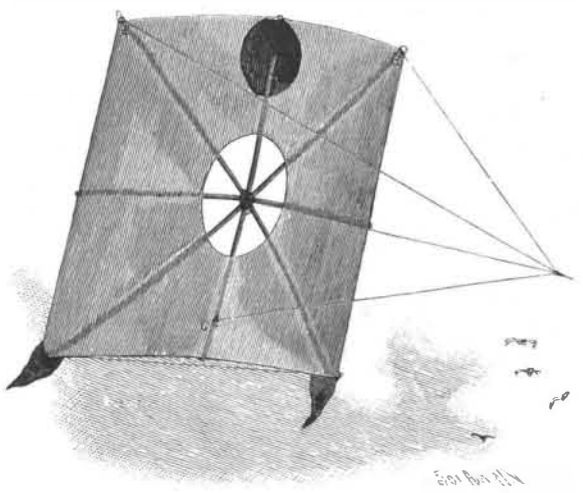
Surgical literature, especially in recent years, contains records of numerous cases in which divided tendons, veins and nerves have been sutured, and in which small members of the body, such as the fingers or the end of the nose, have been successfully reunited. In an article on the surgery of the hand, a liberal abstract of which appears on another page of this journal, Dr. Abbe foreshadows what may become a reality in the future—the restoration of completely severed major parts of the body. The possibility of accomplishing this depends essentially upon our ability to restore the arterial continuity and supply sufficient nourishment to the severed extremity. Experiments in this direction have been made by Dr. Abbe on animals, and the results obtained are of great interest. After cutting across the femorals in a dog he inserted smooth sterilized glass tubes, slightly constricted to an hour-glass shape, tied each end of the vessel over the tube by fine silk thread, and then brought the thread ends together. Primary union took place and the limb was as well nourished as ever; but in order to determine whether this was not due to collateral circulation Dr. Abbe cut out one of the tubes and found the lower end of the vessel occluded by slow endarteritis. To eliminate the element of collateral circulation he tied into the aorta of a cat an inch of very thin glass tube sterilized by boiling and filled with water before inserting to prevent air emboli. This animal also recovered perfectly. A still more radical procedure was then practiced. After dissecting out the brachial artery and vein near the axilla of a dog's forelimb, and holding these apart, he amputated the limb through the shoulder muscles and sawed through the bone, leaving the limb attached only by the vessels. He then sutured the bone with silver wire, the nerves with fine silk, and each muscle by itself, making a separate series of continuous suturing of the fascia lata and skin. Perfect union and restoration of function also took place in this instance. This experiment demonstrates that a limb will survive division of all its structures if an artery be left; and further the author points out that if an arterial supply can be restored to a completely amputated limb, *that* limb also may be grafted back to its original or a corresponding stump. Should Dr. Abbe's investigations—as yet incomplete—show that it is possible to do this in animals, an important contribution will have been made to the subject of reparative surgery. The tissues of animals, however, possess so much higher reparative power than those of human beings, that it is difficult to predict the possibilities of this *fin de siecle* method of grafting.—*International Journal of Surgery.*

Snow Crystals.

Snow crystals are now studied with so much more accuracy from microphotographs than from naked eye observations that physicists and meteorologists no longer depend upon the old method. Prof. G. Hellmann, in his recent valuable work, "Schnee-krystalle," proposes that the crystals be classified as columnar and tabular, subdividing the former class into prisms and pyramids, the latter into stars, plates, and a combination of both.

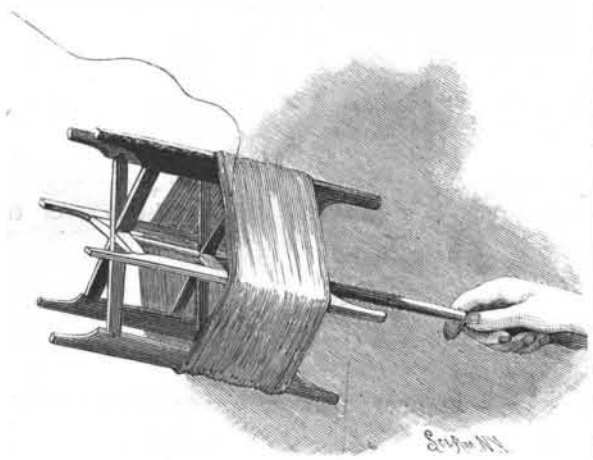
THE COLUMBIAN EXPOSITION—COREAN EXHIBITS.

Corea is a kingdom of Eastern Asia, and its territory is chiefly included in the peninsula lying between the Yellow Sea and the Sea of Japan. The area is about



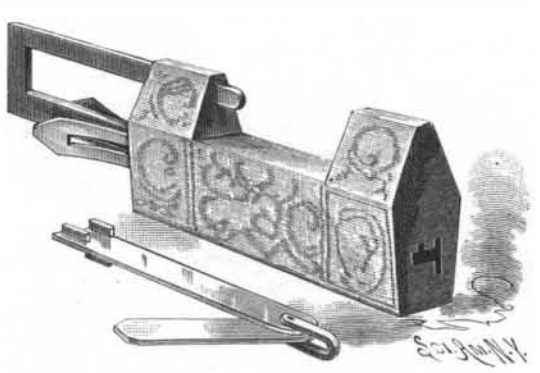
A COREAN KITE.

80,000 square miles, or about two and one-half times the size of Scotland. The population of Corea is estimated at about 12,000,000 and the capital, Seoul, has 250,000 inhabitants. The country is mountainous and is well furnished with rivers. The temperature, though more equable than the surrounding country, is higher in winter and lower in summer than under the same latitudes in Europe. Rice, rye, wheat, millet, tobacco, cotton and hemp are cultivated, but the potato, which was lately introduced into the country, is under a government interdict. Corea is rich in mineral resources,



NOVEL REEL FOR KITE STRING.

but the mines are not properly worked. The King of Corea is a vassal of the Chinese empire, but at the same time is an absolute monarch within his own country. Some of the honors which he receives are very curious. To touch the person of the king with a weapon of iron is high treason, and a king will rather die than submit to any kind of a surgical operation on account of this curious superstition. The language spoken is not Chinese, but belongs to the Turanian family. Education is held in high estimation and the religion is Confucianism. The people live in comfortable tile-roofed houses heated by flues. Though Corea has no railroad as yet, it has electric lights, steamship and telegraph lines.



A CURIOUS COREAN LOCK.

In the history of commerce Corea occupies a curious position, treaties having been only in force since 1882. The exhibit of Corea at Chicago marks a new epoch in the relations of Corea with the rest of the world. It is to be hoped that the insular position of Corea will be modified by contact with other nations, as the people of this strange country have many virtues and excellences hardly to be expected in people of their state of civilization. We illustrate several objects which were exhibited at the Fair. Kite flying is an amusement which is almost universal. The Chinese, Japanese, and Mexicans excel in kite making and flying, and the Coreans are certainly not far behind them. The kite shown in the cut is of moderate size and is made of sticks covered with varnished paper. It will be noticed that at top and bottom the sticks are bent by strings, so that the part of the kite which is exposed to the wind is convex. One peculiarity of the Corean kite is a hole in the center. At the point where the sticks meet in the center the string, which is usually colored, is attached. Three guy lines of equal length steady the kite, and by varying their point of attachment almost any angle can be produced and the kite adapted to all winds. The kites are decorated with paint, the ball being the most common object represented. We also illustrate a reel which is used in kite flying. This reel is about seven inches in diameter and is well made. It turns freely on a pointed stick which is thrust into the ground. Like the Mexicans, the Coreans are very fond of kite fighting. They oil the string near the kite and rub on glass in powder. In a kite battle each person tries to drag his glass-covered string over an unprotected portion of his adversary's string, thus cutting the cord and allowing the kite to blow away.

A curious Corean lock is shown in our third illustration. The lock is after the style of a padlock, and is made of brass. The lock is shown open. The key and the internal mechanism of the lock are very primitive. The two lugs on the upper part of the key press the two springs together and allow the bolt to move. The security of the lock depends upon the springs, which snap into place as soon as they have passed inside, thus forming a V inside the case, in a similar manner as they form a V outside, as shown. Many of the other articles on exhibition showed that the Coreans are handicraftsmen of no mean order, though a lack of proper instruction in regard to mechanical contrivances is shown.

Want of Metric Weights and Measures a Hindrance to Foreign Trade.

In the last published British Foreign Office report (No. 1,300) on the trade, etc., of Bulgaria, it is stated that would-be sellers in England do sometimes go so far as to send out catalogues in French or some other foreign language, but that even then they "persist in retaining the intricate English standards of weights and measures." It is added: The metric system is the one now employed throughout Bulgaria, and it is useless for English mannfacturers—especially of machinery and hardware—to expect that their potential foreign customers will give themselves the trouble of learning our avoirdupois and dimension tables in order to be able to puzzle out quarters, pounds and ounces, yards and inches, gallons, pints, etc., into their metric equivalent.

Regarding Peru a correspondent writes complaining of the inconvenience he suffers when consigning machinery. Shipping specifications have to be sent out in metric weights and measures, and if there are any errors, his customers are liable to a fine. This means that he has to make out the specifications twice over, first in English and then in metric weights and measures. He, therefore, urges, and not unreasonably, that the metric system should be adopted officially in England. This would doubtless lead to its being adopted by all shipowners and carriers, and one more step in the direction of an international system of weights would be taken. Great Britain is almost the only civilized country of first rank which is blind to the interests at stake in this question, and it is high time that a public inquiry should be instituted.

Pneumatic Tubes in Chicago.

A pneumatic tube service between the offices of the various newspapers and news associations of Chicago has just been put in operation. Twenty-nine conduits were laid under Clark Street, beginning at Jackson and running north, and branching off at cross streets leading to their respective destinations. These conduits consist of seamless drawn brass tubes 2⅞ inches in diameter, laid in square vitrified clay pipes, surrounded by about 10 inches of Portland cement. In this way all dampness is avoided. In sending the carriers through these tubes only the pressure of the atmosphere will be used, the necessary vacuum in the receiving end being produced by an ejector. The carrier is made of flexible leather, with an inner spiral frame to keep it in shape, and a band of felt around each end to make it comparatively air tight. It is 2¾ inches in diameter and 8 inches long. This system connects the City Press Association and the Western Union Telegraph offices, at Jackson and Clark Streets, with the offices of the different newspapers, national and international news agencies and the central police station. About one minute is required for a carrier to traverse the longest line. Several years ago the principal newspaper offices in this city were connected with the Western Union Telegraph office by pneumatic tubes.