

THE KANSAS EXHIBIT OF MOUNTED SPECIMENS OF THE ANIMALS OF THE STATE.

The exhibit of the State of Kansas at the World's Fair presents no more interesting feature than that of the superb group of specimens of its fauna, mounted in the highest type of taxidermy. In the cuts we illustrate some of the more striking features of this incomparable exhibit, whose size renders the reproduction of the whole within the limits of our columns quite impossible. The first group contains a number of the Rocky Mountain goats; one of the most difficultly procured specimens of this country. Mounted on the crags, this rock antelope—for it has now been relegated to the class of true antelopes—is seen at different stages of its growth expressing in its characteristic attitude and in the background on which it is mounted the life habits of the animal. Toward the foreground a beautiful group of deer present an object more familiar to the sportsman and naturalist. The great rarity of this antelope and the difficulty of reaching it in its almost inaccessible home makes the group one of the very highest value.

Next comes a specimen of the American elk or wapiti, one of the noblest specimens of the deer tribe that has ever existed, and surpassed in size by very few members of the deer family. Toward the background of this cut may be seen a bear looking forward toward the spectator.

But a few years ago the plains of

and mounted family of buffalo. Upon the plains which they inhabit vast numbers of antelope—the pronghorn—lived, and back of the buffalo a group of these animals is appropriately placed. The pronghorn is interesting as being one of the two representatives of the antelope tribe found in America, the Rocky Mountain goat being the other. The pronghorn is

lip, and great flat antlers, it forms a most striking object. The Kansas exhibit is rich in mounted specimens of this animal. In one group an animated reproduction of a battle between two of the bulls is shown, destined, it may be imagined, to end in an interlocking of the antlers, with death of both combatants. As if with some such expectation as this, a party of wolves are awaiting the issue of the combat.

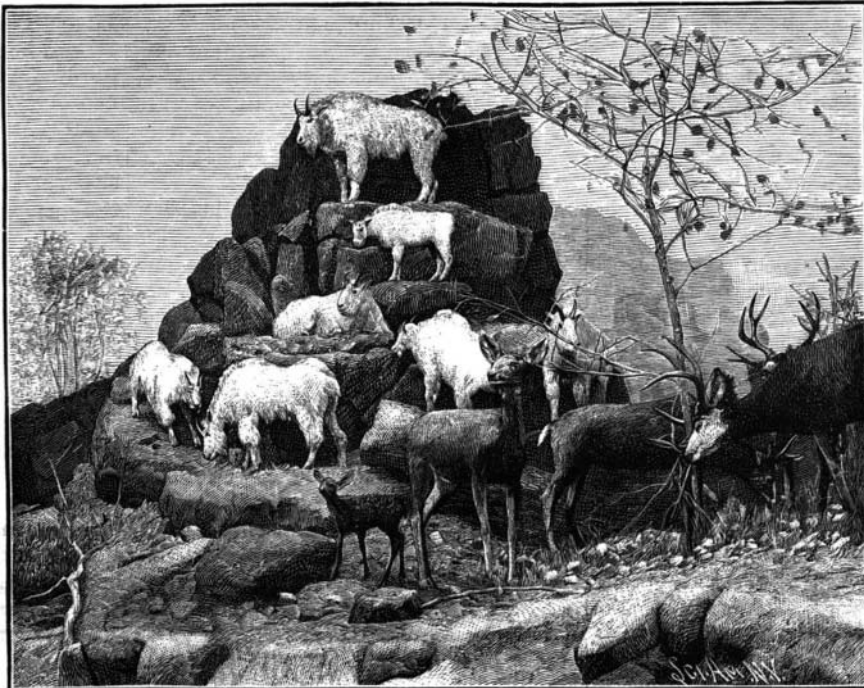
The more peaceful aspect of the moose's life is shown in the next group, where the family—father, mother, and fawns—are shown peacefully assembled. When it is noted that this animal may stand seventeen hands high, or as high as a very large horse, the impressive aspect of these groups may be imagined.

The illustrations will give the reader some idea of these triumphs of the taxidermist's art. In other parts of the exhibit the very rare moufflon, or mountain sheep, the bighorn of the trappers, is shown in great abundance and in many lifelike attitudes, as it stands upon the craggy eminence provided for it. Bears, wolves, and other characteristic specimens of the fauna of Kansas are also shown. The entire group from the point of view of the naturalist is of the highest value.

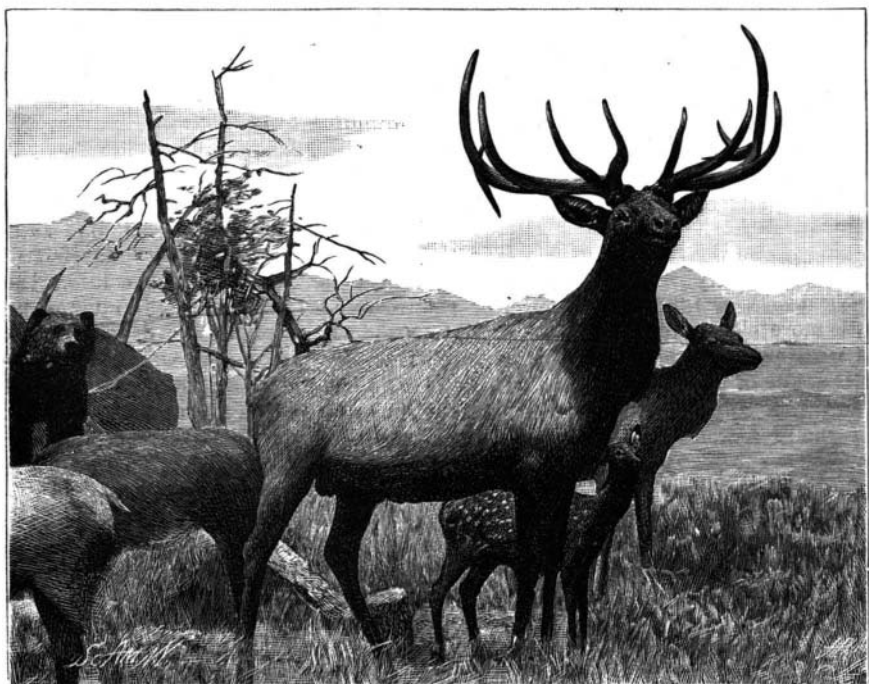
A correspondent sends us the following:

KANSAS STATE EXHIBIT OF MOUNTED ANIMALS.

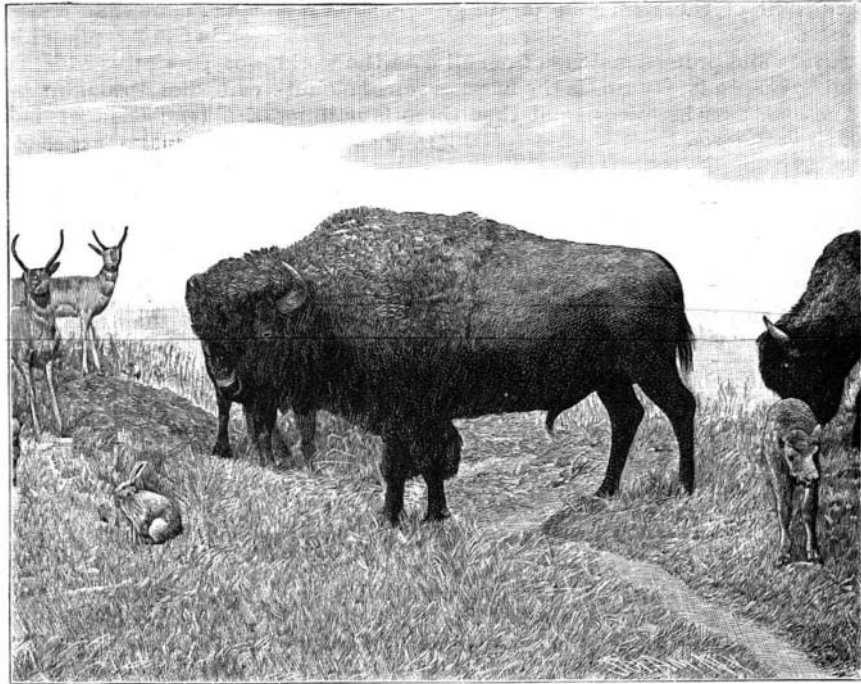
In the north wing of the Kansas building is one of the most remarkable exhibits to be seen at the great Fair.



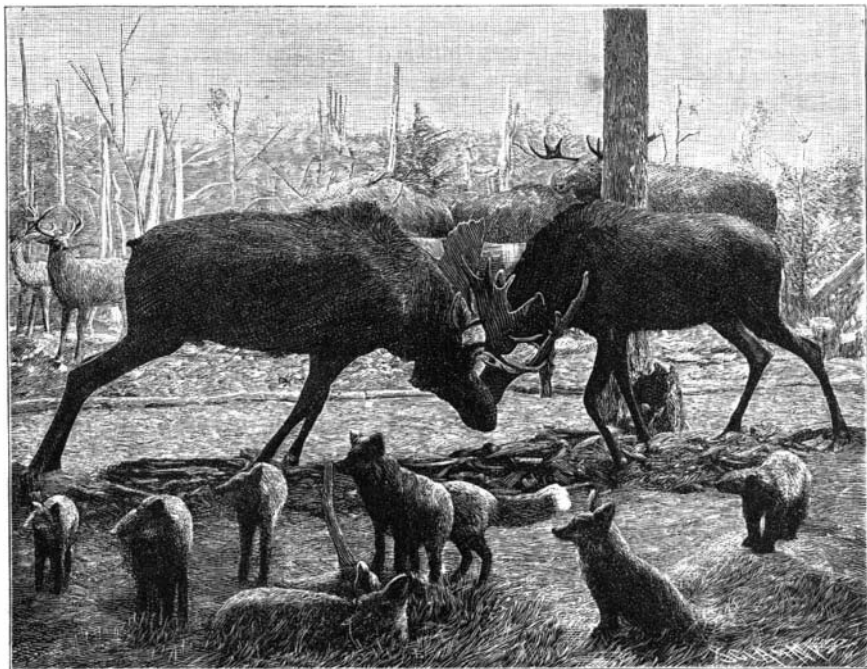
GROUP OF ROCKY MOUNTAIN GOATS.



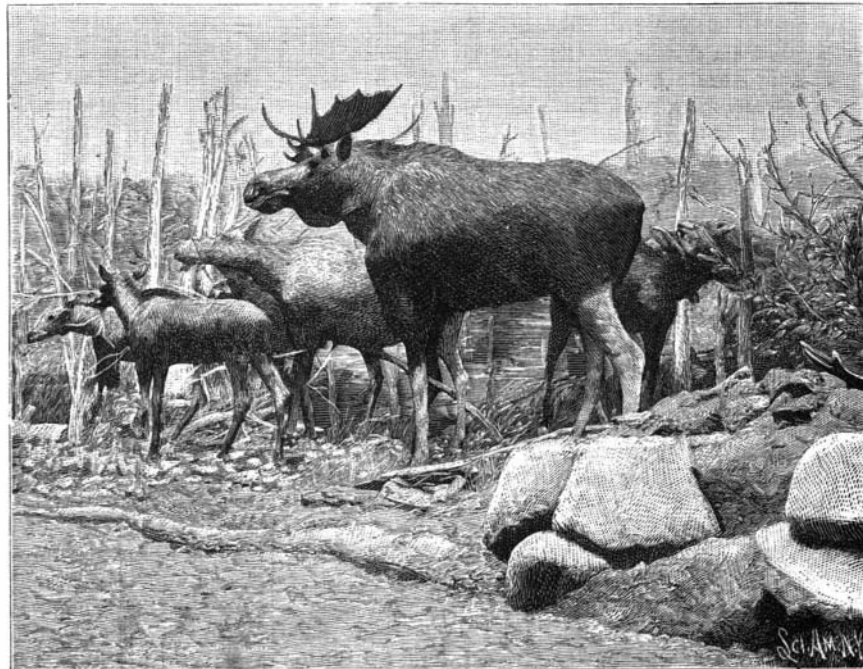
FAMILY OF ELK.



BUFFALO AND PRONGHORN ANTELOPES.



COMBAT OF MOOSE BULLS.



FAMILY OF MOOSE.

THE WORLD'S COLUMBIAN EXPOSITION—THE NATURAL HISTORY EXHIBIT FROM KANSAS.

Kansas swarmed with countless herds of buffalo; so plentiful were these that passengers on a railroad car used to indulge in the brutal amusement of firing at them as the train passed by the herds; now the animal is well nigh extinct, but a few hundred being left in the entire area of North America. Kansas accordingly presents among her other specimens a finely stuffed

an exception to the antelope tribe in the fact that it sheds annually the sheaths of its horns, in a measure similar to the deer family.

The greatest member of the deer family, the shooting of a specimen of which is one of the greatest glories of the American hunter, is the great moose. With its high withers, short neck, prehensile upper

I refer to the natural history display made by the Kansas University.

This exhibit is the work of a man who is recognized by naturalists as the best taxidermist in this country, if not in the world, and a specialty of his is the larger mammals of North America. To this branch of the study of animal nature Professor Lewis Lindsey Dyche

has given many years of his life. The exhibit which he has brought to the World's Fair is the result of ten years' work in the field collecting and fourteen months' work in the taxidermic shop, with five assistants.

In this collection there are 105 mounted animals and 20 heads.

In the southwest corner of the wing will be found one of the grandest groups in the whole collection. This is a group of seven moose, shown in photographs sent. The herd is headed by an enormous bull, that stands 9 feet 2 inches from the ground to tip of his antlers. Near the bull is an old cow with twin calves. The cow is riding down a tree in order to give her calves a chance to browse the leaves.

On a little rise of ground, off from the moose, stands a herd of nine mule deer of the Rockies. On a promontory of rock above the mule deer is a group of the most remarkable animals—the Rocky Mountain goat, seen here as in his home. Under the ledge of rocks at the bottom of the craggy mountain on which are the goats is a mountain lioness and her two cubs.

On the eastern end of the wing stands another fine collection of animals, very artistic in arrangement. This is a group of six elk. The group is headed by a bull, said to be the finest ever taken from the mountains. He stands 10 feet and 9 inches from the point of his toe to the tip of his antlers.

The last group along the wall is on the extreme southeast, and is one that never fails to attract attention. It is a group of buffalo, or the American bison. An immense bull, the largest ever mounted, not excepting the famous bull in the American Museum, is the leader of this herd of five. The group is one of the most natural of the entire exhibit.

There is a group in the left center that cannot be spoken of too highly. The action is perfect, as can be seen by our cut. It is a pair of fighting bull moose. These animals are struggling hard for supremacy, and the details of the work done on the group makes it a masterpiece.

Artists and professional men from all over the world who have seen it say this is the finest group of mounted animals they have seen, and that there is nothing like it in the world. F. D. PALMER.

A Lightning Calculator.

There has arrived in London from Paris, M. Jacques Inaudi, a gentleman to whom Babbage's calculating machine would be a poor second. He gave an exhibition of his abilities recently to a small party at the Hotel Victoria, and did some vigorous ready reckoning. M. Inaudi is a little man with a pleasant face crowned by a large square forehead and ornamented with a heavy crop of upright hair and a small mustache. He has other subjects of conversation than decimal fractions and the extraction of cube roots, and does not mind in the least talking about the weather or the Panama Canal while doing complex sums. The banqueting room of the Hotel Victoria, where the *seance* was held, was reminiscent of the class room, as it contained a row of blackboards with attendant chalks. Everybody wanted to pose M. Inaudi with racking sums in all the varieties of arithmetic, but he was equal to the occasion—to half a dozen occasions, in fact—for at one time he played dominoes, found the square of a number which ran into billions, carried on a conversation in French, and announced his results in English. The names of the numerals form nearly all the English he knows. In four minutes and twenty seconds he worked out—carrying on a conversation at the same time—a sum in addition with six figures in each of six lines, a sum in subtraction running into millions, divided six millions odd by eighteen thousand odd, found the square of an eight-figure number, the cube root of one sum and the square root of another. This all was done without a figure in sight or any aid to calculation further than that afforded by occasionally resting his finger tip on the tip of his nose. What was more, he proved that the gentleman who was checking his results on the blackboard was wrong in one instance. Then, in an airy way, he recited, still without having seen a figure, every number on the blackboards behind. Here is a little sum in subtraction, which M. Inaudi worked out in less than a minute, the component numbers being dictated to him by various of the gentlemen in the room:

974,325,436,501,212,741,682,412
489,425,179,111,237,103,426,014

Result—484,900,257,389,975,638,256,398

M. Inaudi, who will shortly give a public exhibition of his powers, is a self-trained calculator, starting life when eight years old as a shepherd.—*Daily Graphic*.

Completion of the Great Dam Across the Colorado River.

A press dispatch from Austin, Texas, dated June 7, says: The regatta which began here to-day has brought together the world's greatest oarsmen and the prospects are good for fine racing during the four days it lasts. The regatta is in the nature of a celebration in honor of the completion of the great dam across the

Colorado River, which is a remarkable piece of solid masonry. The length of the dam is 1,150 feet, it is 66 feet high, 60 feet broad at the base and 16 feet at the crest. It has formed a lake 22 miles long with an average width of 1,200 feet, containing 21,000,000,000 gallons of water, or enough to supply the city of Austin twenty years without being replenished. The purpose of the dam is to furnish a water supply and power for the electric light system of the city. Besides accomplishing these purposes, 14,000 horse power has been developed, which will be disposed of to manufacturers at nominal cost. The cost of the dam was over \$600,000. This great work was illustrated in the SCIENTIFIC AMERICAN of September 24, 1892.

The Oldest Book in the World.

The only complete work that, without question, can lay claim to being the oldest book in the world is known as the "Papyrus Prisse," and now forms one of the treasures of the Bibliotheque Nationale. It was presented to the great library of Paris by a Frenchman of the name of Prisse, who discovered the papyrus at Thebes. The tomb in which it was found contained the mummy of one of the Entews of the eleventh, or first Theban, dynasty. The date when the manuscript was written cannot, therefore, have been later than 2500 B. C. But if the exact age of this identical copy should be doubtful, we know precisely, from the text itself, the date of its composition, as it states it was compiled by one Ptah-hotep, who lived in the reign of King Assa. The full title runs: "Precepts of the Prefect Ptah-hotep, under the King of the South and North, Assa." As this king was the last but one of the fifth dynasty, Ptah-hotep, who flourished in the reign of this Pharaoh, and held the distinguished office of "prefect," must have compiled his work about 3350 B. C. Divided into forty-four paragraphs or chapters, the work is something very much more than a mere literary curiosity. It is written in the Egyptian hieratic character; is rhythmic, if not poetic; is addressed to the educated classes and embodies throughout high and noble principles for the regulation of individual life and conduct and for the maintenance of good government. The man in authority is enjoined by this very ancient writer to labor at all times to be a true gentleman, lest from his own defects of character he suffer the authority given him by favor of the Supreme Being to be weakened. An Egyptian prefect was the highest dignitary in the land, second only in authority to Pharaoh himself. It was the office held by Joseph in the Biblical story: "Only in the throne will I be greater than thou." The prefect had the custody of the key of the Larit, or royal granaries, to which no entrance could be obtained without the production of the prefectorial seal. The holder of the office was at once the Egyptian First Lord of the Treasury, Chancellor of the Exchequer, and, in his judicial capacity, Lord Chief Justice of Egypt.

All our greatest Egyptologists bear testimony to the extraordinary civilization of ancient Egypt. The work of Ptah-hotep fully confirms this position. It testifies to a height of culture and refinement obtaining in Egyptian society 5,240 years ago that to our Western circumscribed notions of modern superiority are simply inconceivable. The teachings of the "Precepts" more than justify all that has been said by Egyptologists. "It is certain," says Professor Renouf, "that at least 3,000 years before Christ there was in Egypt a powerful and elaborately organized monarchy, enjoying a material civilization in many respects not inferior to that of Europe in the last century." Leptius writes: "The fourth dynasty ascended the throne about 3124 B. C., and at that time, long before our usual ideas of the development of nations, there is found a people highly instructed in all the arts of peace; a state carefully organized; a hierarchy firmly founded, minutely divided and organized to the smallest external matters; a universally diffused system of writing and the common use of papyrus; in short, a civilization which in all essential points has already attained its full maturity, and only by close investigation is further development in some directions discovered." So also Professor Maspero: "In one of the tombs of Gizeh, a high officer of the first period of the sixth dynasty (B. C. 3708) takes the title of 'Governor of the House of Books.' Not only was there already a literature, but this literature was sufficiently large to fill libraries, and its importance was so great that one of the court officers was specially designated for the keeping of the royal library." The wisdom and high moral teaching embodied in the precepts of Ptah-hotep abundantly confirm this testimony. This old writer urgently enforces on rulers the cultivation of the doctrine of "Ma," an Egyptian dogma, comprehending "the true, the beautiful, the good." "Ma" is the principle of order and harmony in everything; it is the steadfast pursuit of wisdom, knowledge and obedience—obedience as the best of all. Although, as in modern expression, we should say "extremely liberal" on many subjects, politically, Ptah-hotep displays an oriental horror of innovators and innovations. Ideas that may be new to the generation are

not necessarily new to the world, and changes do not always imply progress.

According to Ptah-hotep, contemporary estimates of human actions are not always the most reliable or the most enduring. "Not of the counsel of the flatterers of to-day is it needful to take heed; it is of the judgment of posterity rather which renders justice to righteous actions."

"Only by a consistent life of reverence for knowledge and wisdom; by observing a just moderation in everything; not abusing authority, but by seeking to inspire love rather than fear, can we hope to appear before posterity with honor." In sixteen different instances in which Ptah-hotep speaks of God he does so in the singular number—an argument happily no longer needed to establish the monotheistic character of the Egyptian religion. He ends by saying: "I have reached one hundred and ten years of life, blessed by the favor of the king, among the first of those who have exalted themselves by their works, doing the pleasure of the king in an honored position." "The Precepts of Ptah-hotep" have been translated from the hieratic into French by M. Virey, and retranslated into English by Professor Osgood. They reveal throughout the mind of one who all his life has been accustomed to the higher walks of society in a well-ordered state. The sixteen pages of the "Precepts" are in the manuscript preceded by a few leaves of a still earlier work, written by one Kakimna, Prefect to King Seneferu, of the third dynasty. Had this work been complete, we should have been able to boast of a book older than the Pyramids and dating from 3,760 years before Christ—a book 5,650 years old!—J. H. Mitchiner, in *Knowledge for June*.

The Discovery of Lithography.

One of the greatest discoveries ever made was the result of the purest accident. It was in the year 1796. The citizens of Munich had just witnessed the first triumphant performance of Mozart's opera "Don Juan," and the theater was deserted by all save one man, Alois Senefelder, who, after making a round of inspection in the building to see that no sparks had ignited anything combustible, retired to his room to stamp the tickets of admission for the day following. When he entered his apartments he had three things in his hand—a polished whetstone which he had purchased for sharpening razors, a ticket stamp still moistened with printing ink, and a check on the treasurer of the theater for his weekly salary. As he placed the latter upon the table a gust of wind swept it high up in his room for a moment and then deposited it in a basin filled with water. Senefelder dried the wet paper as well as he could and then weighed it down with the whetstone, upon which he had before carelessly placed the printing stamp. When he returned to his room the following morning he was astonished at seeing the letters of the stamp printed with remarkable accuracy upon the dampened paper. A thought came to him. He wondered whether by some such means he could not simplify his work of continually copying the songs of the chorus. He went out and purchased a large stone, commenced making experiments, and, as we all know, finally discovered the art of printing from stone—lithography.—*Stone*.

Novel Foundation Laying.

Several novel features of construction will appear in the new building of the Manhattan Life Insurance Company, in course of erection in lower Broadway, New York. The great structure will have a steel skeleton frame, and will tower aloft to an elevation of 300 feet above the curb line. The supporting piers of the building are to be sunk to bedrock by what is known as the pneumatic process. The reason for the employment of this plan is that the soil is a fine sand for a depth of about fifty feet overlying the rock. It would be a great risk to build so heavy a structure on the sand, and to excavate to such a depth would very likely result in undermining neighboring buildings, especially as the soil is very wet. The difficulty is to be overcome by sinking pneumatic steel caissons, fifteen in number, by the same means that are often employed in laying the foundation for bridges, and which was used in connection with both towers of the Brooklyn bridge. When the caissons reach bedrock, the workmen inside level the rock, so as to give a firm bearing, and then fill in with concrete, so that the space from the top to the bottom of the caissons is solidly filled, and upon these piers in turn will be placed huge cantilevers, from which will be built up the skeleton steel structure of the building.

Bottles in China.

It is stated that the Chinese much appreciate European bottles. They have a great liking for them, and will resort to subterfuge, if necessary, to get hold of them. The common people worry the medical missionaries considerably upon this point, shamming sick in order to be supplied with a bottle of medicine. The authority for this report does not furnish any information as to what our celestial friends do with the bottles.

Chinese Cheap Labor.

American medical missionaries are now very popular in China. They are everywhere welcomed, more especially because they offer both medical advice and medicine gratis, prefaced with religious exercises. The Chinese appear to appreciate this kind of practical religion. In a recent letter to the *Missionary Herald*, Dr. Chapin tells of his missionary successes in the vicinity of Pang Chuang, and says:

"On this trip I learned for the first time that there are in this part of China a number of 'counterfeit' foreigners. I was myself taken to be one of that class, because of an ability to make myself understood in Chinese. It seems that one or more enterprising Celestials have gone into the work of dispensing medicines after the manner of the American physician. Usually two or three men go together. One of these dresses in foreign costume and talks a gibberish which is not understood by the natives, and so passes for a foreign language. In imitation of American physicians, all medicine is given away, but, unlike that fraternity, the bogus representative of America is quite willing to receive contributions of grain to feed the animal which helps convey him from village to village. In consequence grain pours in upon him by the quantity. This is disposed of by a confederate at the nearest fair, and then Ah Sin departs for 'fresh fields and pastures new.'"

The High Atmosphere.

Beyond 29,000 feet above sea level, the height reached by Glaisher, in 1862, man has never been able to navigate the air. Various problems concerning the region farther away—such as the temperature, the pressure, the quantity of moisture, the composition of the air, etc.—have attracted the attention of physicists, and have at last led to the experiments of M. Hermite, who, during the last few months, has been sending up pilot balloons, carrying registering apparatus. These balloons are very light, with a capacity of about 100 to 200 cubic feet. Falling at distances from Paris ranging up to 200 miles, the balloons have nearly all been returned by their finders, as requested on a card attached to each, and one has brought down records from a height of 30,000 feet. The instruments used are very light and simple. With larger balloons and systematic exploration, it is hoped that the secrets of the air up to at least 40,000 feet may be made as familiar to us as those of the deepest and darkest depths of the sea are gradually becoming.

THE FIN CUTTER LENI LENEPE.

The changes and improvements which the ingenuity of modern man is constantly producing are well illustrated in the new type of sailing boats which are now rapidly coming into use. We here give a photographic portrait of the *Leni Lenepe*, a fin cutter, built by Clay & Torbensen, of Gloucester City, N. J., who rank among our most progressive and scientific architects, not only in the line of sailing yachts, but steam and sail craft of every description. Compared with the clumsy, round-bottomed boats of our forefathers, the new style of sailing craft here shown presents an odd and strange appearance.

The *Leni Lenepe*, probably, in point of construction, is the lightest fin keel cutter ever built in this country and is also one of the fastest of her class. Dimensions are 29 feet on deck and 16 feet 10 inches on L. W. L., extreme beam 6 feet 4 inches. The boat is a marvel of lightness and strength; planking is of $\frac{5}{8}$ inch white cedar, ribs of white oak, straight grained and steam bent, $1\frac{1}{4}$ inch by $1\frac{1}{2}$ inch, spaced 10 inches on centers; floor timbers are of iron, keel and deadwoods of white oak. Fin keel weighs 2,000 pounds and is bolted through keel with composition bolts. All rivets and fastenings are of brass and copper, and the method of planking is such that no calking is required; no seams are visible. The hull is finished as smooth as glass. Hull, spars and rigging weigh only 1,750 pounds. We are informed this yacht has out-sailed and outpointed all boats of her class with which she has competed.

Foreign Honors to an American Architect.

Architect Richard M. Hunt, of this city, has just received at the Royal Institute of British Architects, the Queen's gold medal. Mr. Hunt is the first American on whom this honor has been bestowed. It is understood that Mr. Hunt received the medal on account of his excellent work at the Chicago Fair. Mr. Hunt has spent considerable time abroad, and much of the refined taste exhibited in his various works can be attributed to his cosmopolitan experiences.

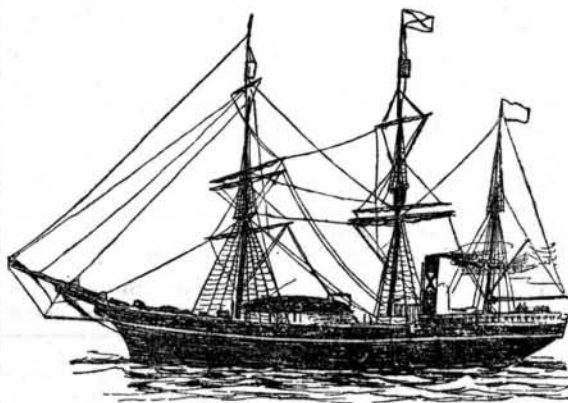
THE PEARY ARCTIC EXPEDITION.

The first chapter in the history of Lieut. Peary's new Arctic expedition was opened on the 2d of July, when the ship that is to bear him and his party to the polar regions took her departure from New York. The vessel, known as the *Falcon*, is a strongly built sealing steamer, belonging to St. Johns, N. F., and has been specially chartered for this service.

We give a small portrait of the ship.

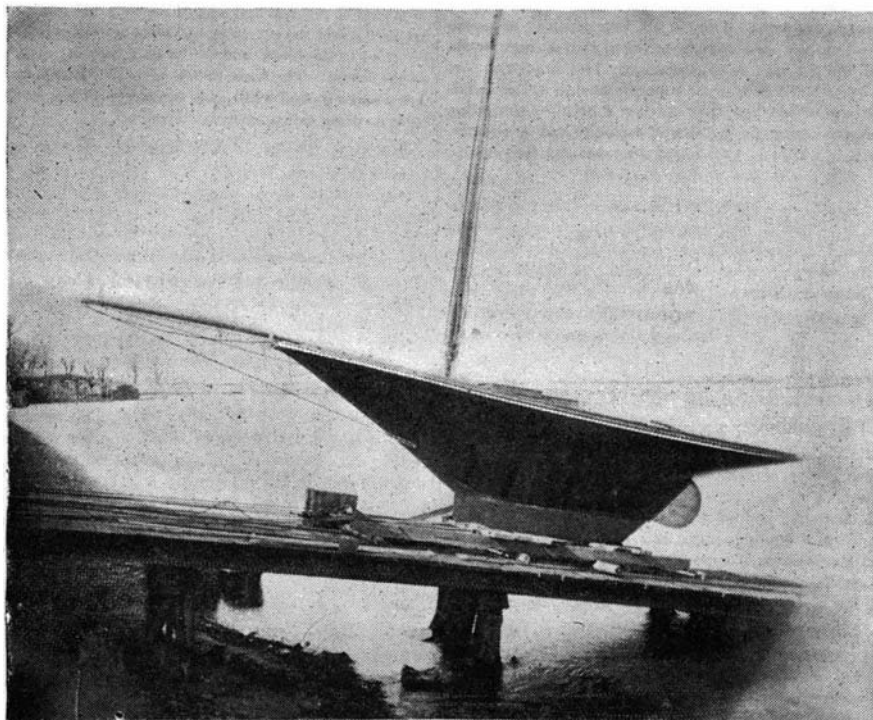
The *Falcon* will touch at Boston, Portland—which is Lieut. Peary's old home—and at St. Johns, Newfoundland, where the crew of the vessel belongs. From St. Johns the vessel will sail direct to the Arctic seas, making the first landing at Inglefield Gulf, where Lieut. Peary will establish his station.

The *Falcon* is bark rigged, 162 feet long, 26 feet beam, draws 17 feet, is 311 tons burden, and has twin screws. She is strong and capable of ramming the ice. On deck she carries a steam launch and whale boats.



PEARY'S SHIP, THE FALCON.

Besides Esquimaux dogs, eight Rocky Mountain burros are carried. Lieut. Peary will teach the burros to walk on snow shoes, and they will be taken on the inland trip to carry the provisions; when their load is used up, they will be killed for food for the dogs. A cote of carrier pigeons is also taken along. Among the curiosities we saw in the cabin was Lieut. Peary's sleeping bag, which is made of the winter coat of the reindeer. The weight is $10\frac{1}{4}$ pounds, hair side inward. Lieut. Peary says he has slept in these bags in perfect comfort when the thermometer registered the very low temperature of 45° below zero F. Packed away in the hold along with the three years' provisions is the house which will be erected in Greenland and which will shelter the party for two winters. The following particulars in regard to the house were furnished the *SCIENTIFIC AMERICAN* by Lieut. Peary. The house will be 33×14 feet on the ground plan, and $7\frac{1}{2}$ feet high, and will be divided into compartments. The walls of the house are divided as follows: First, an in-



THE FIN CUTTER LENI LENEPE.

ner lining of red felt, then an air space of one inch; a sheathing of matched boards comes next, then an air space of one foot, then a layer of tarred paper; another sheathing of matched boards is followed by a layer of tarred paper; a four foot corridor comes next, and the boxes of supplies form the outer wall. The house will be heated by steam and lighted by electricity. The launch engine and boiler will be taken out of the boat when navigation closes, and will furnish steam for heating and for running the dynamo. Coal oil will be burned. Lieut. Peary's house certainly has all the modern improvements.

The *Falcon* will be sent back after landing the cargo and is under contract to return in the summer of 1895.

The expedition will now consist of fourteen members. The list is: Lieut. and Mrs. Peary, Mrs. Cross, of Brooklyn (Mrs. Peary's maid); S. G. Entrikin, West Chester, Penn.; James W. Davidson, Austin, Minn.; E. R. Baldwin, Oswego, Kan., meteorologist; Dr. E. Vincent, F. W. Stokes, Philadelphia, artist; W. J. Swain, Indianapolis, stenographer; Hugh Lee, Meriden, Conn.; G. H. Carr, Chicago; Evraud Astrup, the Norwegian geologist; George Clarke, Brookline, Mass.; and Matthew Hanson, a colored valet.

On the east side of Inglefield Gulf, Greenland, in about latitude $78^{\circ} 45'$ north, 35 miles somewhat north of east of Redcliffe, Lieut. Peary has selected the site of what may be termed the headquarters of his Arctic expedition. It is 400 miles north of the most northern station now occupied in Greenland. There will be reconstructed the winter house above described, and thence Lieut. Peary will make exploring advances, and perhaps approach the north pole.

Ivorytypes.

BY GEO. G. ROCKWOOD.

Recently, in overhauling my establishment, I unearthed some ivorytypes which were made fully twenty or twenty-five years ago. They were in such a fine state of preservation, and make such beautiful and permanent pictures, I am about to revive them.

As many of the fraternity don't know how to make these pictures, I send you a description of the methods used. I think they will be a good thing to reintroduce. Many fine styles of pictures have had their "day," and have been dropped for some novelty—often, I think, unwisely. The ivorytype is one of the illustrations of this tendency. It is no step backward to make them.

Process.—First.—Make a print on plain paper, strong and brilliant; now edge a common clean glass to the width of a quarter of an inch with glue or starch; dampen your print a little and put it on the glass, picture side up. When dry, the print will be stretched nicely on the sheet of glass. The glass should be a little larger than the desired picture, for the reason that when colored and completed it is cutoff from the glass. Having your print in this condition, stretched on the glass, it is to be very brilliantly colored in water colors. Altogether the picture presents a dark, strong, brilliant effect. Lay this, glass and picture, upon a flat slab of soapstone—of course, the picture side up—and gradually heat the soapstone on a gas or oil stove until the plate is hot enough to melt wax. Now break a cake of white wax (not paraffine) in two, and rub the surface of the picture with the wax, which gradually melts and saturates the picture. Your picture at this stage looks very much like a "gone goose." Now cut it very carefully at the edge with a sharp knife and lift the picture off from the glass; you will then have a translucent picture. Now heat a sheet of white plate glass in the same manner as you did the other, and when hot lay your wax, face down, upon the glass; it will soon melt and adhere to the glass. With a piece of wax (the sharp edge of the wax used as a squeegee) rub out the air bubbles. So soon as this is done, pick up your glass and let it cool. Now put drops of wax around on the picture to keep the cardboard from absolute contact with it, and put a piece of cardboard behind it, and you have the prettiest picture on earth.—*Anthony's Photo. Bulletin.*

Malaria.

Dr. H. M. Clark has printed a memoir of his experience with malaria during a residence of nine years in India. How formidable a barrier to civilization malaria is may be inferred from the fact that to this disease alone is attributable not less than half the deaths throughout the world. It is not confined to rich, low-lying soils, but is found even in sandy deserts devoid of any vegetation. Once it finds a lodgment in the system, it cannot be wholly eradicated, and it is beyond the reach of acclimatization. Only two races are proof against it, the negroes of the grain coast of

Western Africa and the Taurus of Northern India. Modern medicine and sanitation are equally powerless in dealing with it.

In some places in India, where the cities and towns are built in defiance of all the rules of health, malaria never is known. As preventives, the doctor suggests the turning of swamp lands into lakes, and the planting of such trees as will retain water and shade the soil. For such purposes the eucalyptus is, therefore, useless; but the plantain and banana should answer well.

THE excavation at Hell Gate reef was attended by 21,000 soundings and 8,000 borings.