



Trader and Mail Bicycle Equipped with Mexican Saddle Drawn by Eskimo Dogs 700 Miles Through Alaska.



A Group of Eskimo, Showing the Skillful Manner in Which Their Sealskin Garments are Cut and Decorated.

rents. As will be seen from the illustrations, some of these were large enough to admit a man's body, while others were an inch or less in diameter. We have never seen a photograph of the destructive effect of a bursting shell that was so eloquent as this one, and it is easy to picture the terrific slaughter that must take

it. blew out a large portion of the opposite bulwark, leaving the great rent shown in one of our illustrations, the view being taken from the opposite side of the ship from which the shell entered. Another big shell passed through the vessel between the main and gun decks, badly wrecking the interior of the vessel. Another shell struck the "Askold" at the waterline and lodged in the coal bunkers. The repairs to the ship consisted in replacing the funnels, cutting out the damaged portions of the shell of the vessel, and building in new plating in its place. An interesting photograph is the one showing Admiral Metzenstein complimenting the crew of the "Askold." The sailors and officers seen in this cut are the survivors that passed unharmed through the fight.

mirror. The captain has in his possession a number of photographs which were taken by this means, and these are said to be quite satisfactory, although they were made in the early spring, when the water was clouded with dirt washed down into it. These boats will be used on Lakes Mona and Muskegon during the

The "Askold," which was built at Krupp's in 1900, is a protected cruiser of 6,500 tons displacement and 23 knots speed. She carries twelve 6-inch, 45-caliber rapid-fire guns, twelve 3-inch rapid-fire guns, and ten smaller rapid-fire pieces, besides two submerged torpedo tubes and four above-water tubes. She is one of a half-dozen vessels of similar speed and type, among which was the ill-fated "Variag," which was sunk by gun fire in the harbor of Chemulpo at the commencement of the war.

A New Form of Pleasure Boat.

Capt. Louis Larsen, of Muskegon, Mich., a well-known sailor of the Great Lakes and formerly master of the steamer "Charles B. Hackley," has recently received patent papers on a new form of pleasure boat which will have many attractive features for tourists and excursionists. In this craft there are not only means for constantly surveying the floor of the stream immediately under the boat, but also for making pictures of the same. The latter will open a new field for the amateur photographer, if the captain's scheme proves entirely practicable. The boat as designed by Larsen is supplied with a glass bottom, and under the bottom of the craft is an electric light which will illuminate the water and the bed of the stream for some distance around. A hooded reflector makes it possible to sit comfortably in the boat and witness the curious things in the water below with great ease, and pictures may be taken also through means of the



"Mac," the Wise Bear from the Yukon, and an Eskimo Boy.

place in a crowded battery when a shell of this kind bursts, and the thousand flying fragments sweep across the inclosed space. The funnel that was so badly crippled that it fell in upon itself was the fifth and last. The fourth funnel was also so much shattered that it had to be taken out and repaired. The big shell that passed through the fifth funnel, after wrecking



Half-Breed Eskimo Girl.

summer season. Boats of this type have long been used in Florida and California waters.

ESKIMO VILLAGE AT THE WORLD'S FAIR.

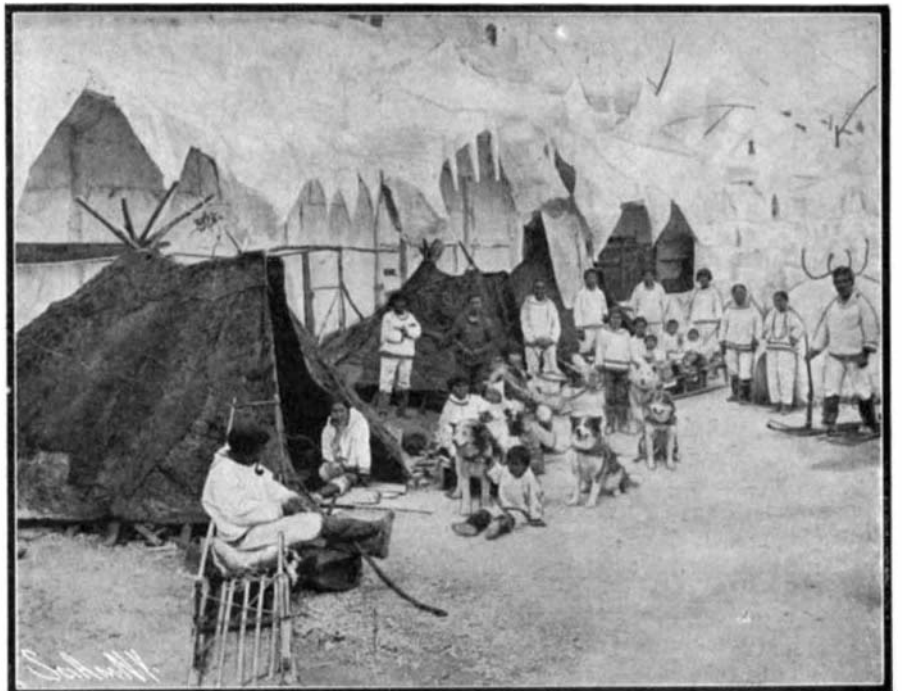
BY THE ST. LOUIS CORRESPONDENT OF THE SCIENTIFIC AMERICAN.

The St. Louis Fair is particularly rich in subjects of ethnological interest, and tribes from almost every corner of the earth are gathered within its inclosure.



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"Mac," the Wise Bear, Driven by Eskimo Children.



Eskimo Village and Natives with Dogs, Showing the Topeks or Huts Made of Sealskin.

ESKIMO VILLAGE AT THE WORLD'S FAIR.

One of the best exhibits of this kind is the Eskimo Village, the inhabitants of which, representing two tribes, one from Labrador and the other from Alaska, localities that are 2,700 miles apart, have been brought to the fair by "Dick" Crane, a pioneer Alaskan explorer and trader, whose picturesque history is well known throughout the new gold fields. After many years' residence among these people, he had so far won their confidence that he was able to persuade several families, nine in all, to come to St. Louis. With them he brought twenty-six Eskimo dogs, a large number of sleds, native implements of the chase and of domestic use, and a museum of articles illustrative of Eskimo life. The whole exhibit is one of the most genuine of its kind, and the American citizen may see these strange people from the North housed in their summer tents of sealskin or their winter "igloos" or snow houses, and engaged, the women in their domestic duties of sewing, cooking, etc., and the men in their various feats of skill, whether in the hunt or in their pastimes, of which they are unusually fond. Mr. Crane has made a careful study of the Eskimo, and has formed a high opinion of his kindly disposition and sturdy qualities. He is satisfied that it is a mistake to suppose that because of certain facial similarities, these people are of Japanese or other Asiatic origin; rather he is disposed to think that they are a branch of the North American Indian, whose peculiarities of physical and facial make-up are due to climatic and other formative influences. They are a people that use the upper part of the body far more than they do their lower limbs, consequently they are enormously strong in the arms, shoulders, and back, a fact which is proved by various feats of lifting and carrying that they perform in their native village. The cold climate and the complete isolation of the people have combined to produce that exceedingly kindly and friendly disposition which shows in the genial countenance of the Eskimo, and is evidenced by the winning smile and outstretched hands with which they come out of their tents and greet the visitor. They live four or five together during the winter, in their igloos, which they can build in from twenty minutes to half an hour. For a window they use a block of transparent ice. Four or five will crowd into one of these warm abodes, with a whale or seal oil lamp, consisting of a hollow dish with a little moss for a wick, which serves to give them both light and heat. The temperature, when the lamp is lighted, will soon run up to ninety degrees.

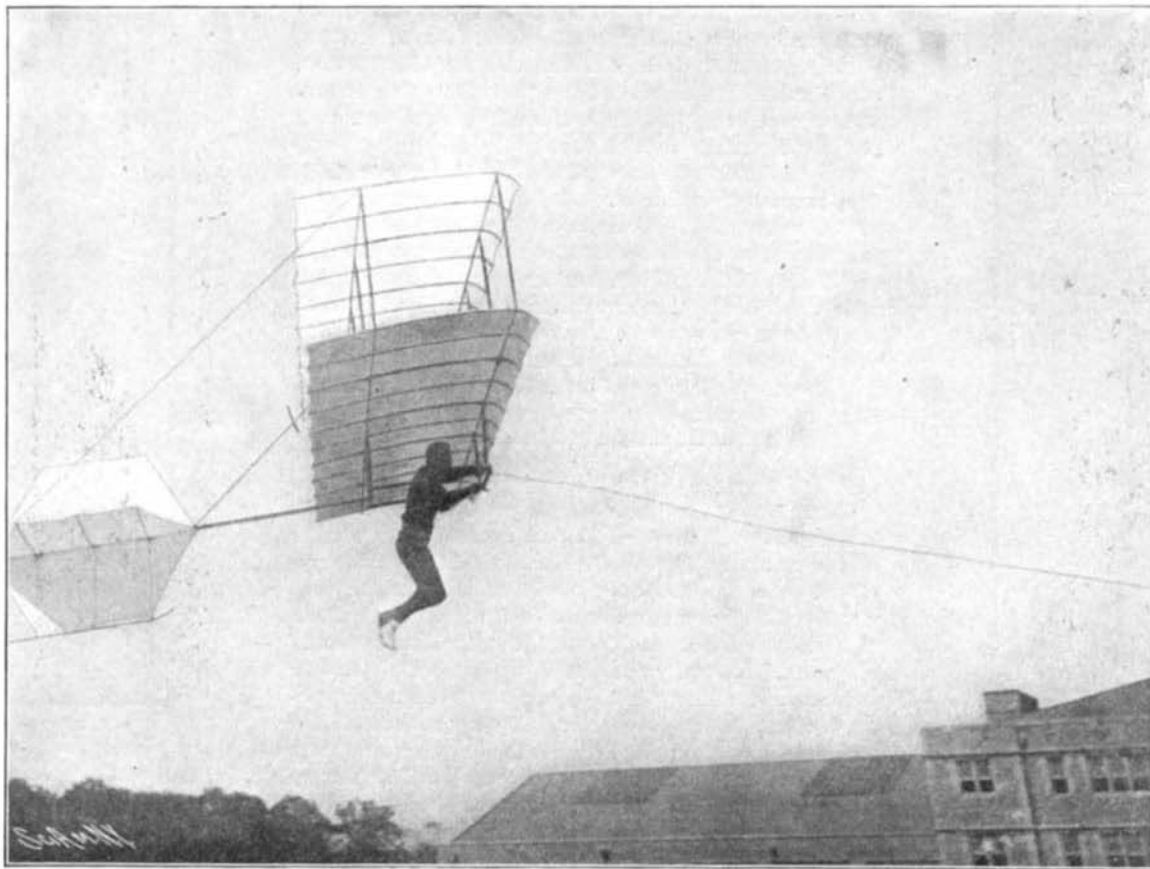
The sociability of the Eskimos has won them many friends among fair-goers; their abodes are sweet and wholesome, and they may be seen continually washing their clothes, while in spite of their close quarters there is no offensive odor noticeable.

One of the most interesting of our photographs shows what is neither more nor less than a "dogmobile." It seems that a few years ago, when Crane was carrying mail and other matter over a 22-mile route on the Dawson trail, a "tenderfoot" came into the country bringing with him, of all things in the world, a bicycle, which he quickly discarded. It occurred to the trader that in the summer months this might make an excellent substitute for his dog sled; accordingly solid tires were put on, a huge Mexican saddle took the place of the bicycle saddle, a whiffletree of bone was constructed, and with a team of four Eskimo dogs this novel conveyance served for journeyings over the trail, which aggregated between 700 and 800 miles in a single summer.

It is stated that the French colonial party have instructed M. Leroux to submit a proposal to the Emperor Menelik to bring about internationalization of all royal lines for which concessions had been or might be granted in Abyssinia. The Negus approved the proposal on the condition that a preliminary agreement should be concluded between the three powers interested in the question. Negotiations have consequently been opened between the British, French, and Italian governments. As soon as agreement is reached work on the construction of the railways will be resumed.

PREPARATIONS FOR THE AIRSHIP CONTEST AT ST. LOUIS.

The first attempt in the history of aeroplanes to operate a flying machine of that type carrying a man through the air was made on Thursday, the 6th instant, in the Stadium at the World's Fair by experts in aeronautics, and was considered by all of them a remarkably successful venture. Among those who witnessed Mr. Avery's trial performances were Major Baden-Powell, Mr. Chanute, Mr. Baldwin of San Francisco, Prof. Carl Myers and wife, M. Hippolite Francois and party, Mr. J. E. Sullivan of the Washington University, Lieutenant-Colonel Capper of the British Army Balloon Corps and Mrs. Capper, Mr. W. F. Reed of London, England, and Captain Von Tschudi of the German Army Balloon Corps. Encouraged by the plaudits of the scientists who witnessed his initial venture, Mr. Avery awaits the time of the great aeronautic contest for which the Exposition Company has offered the \$100,000 prize. Mr. Avery's machine, which was built by himself, assisted by his brother Frank, in the Aerodrome at the Fair, is made upon plans furnished by Mr. Chanute, the man who built the first bridge over the Mississippi River. Mr. Chanute furnishes original plans free of all cost to any bona-fide aspirant for aeronautical achievements. The Avery machine is especially interesting because of its lightness, being perhaps the lightest structure of equal surface area ever built for actual man flight, as it weighs but 18 pounds all told. It consists of a light framework supporting two aerocurves, each 18 feet wide by 5 feet deep, one placed 4 feet above the other. Behind this is a cross-bladed rudder for balance and safety of



SAILING 50 FEET FROM THE GROUND SUSPENDED FROM AN AEROPLANE AT THE WORLD'S FAIR.

evolution. The machine is propelled by the force of gravity acting upon it, the weight including that of the operator and the machine, which falls or glides from a height downward and forward through the air to a landing on the ground. This height is attained by rapidly pulling the vessel forward by means of a copper wire attached to a small motor, until the machine rises gracefully in the air like a kite, carrying the man in its flight. The latter rests along two horizontal bars under his armpits and forearms, permitting a free movement of the body backward or forward, and a swinging of the lower limbs in any direction to counterpoise the machine or balance any irregularities of the wind currents. It is interesting to note in this connection that before taking up the study of aeronautics, Mr. Avery was for many years a sailor. While at sea he made a close study of the effect of wind currents upon sails, and is thus enabled to meet or resist the action of the current as he glides through the air. Before making the start, the kite-like glider rests upon a small platform, which is mounted upon four wheels on a small rail track, and it is upon this platform that the glider is drawn forward until sufficient speed is attained to lift the whole thing aloft and send it scudding through the air. The operator releases the copper cable at any desired point, allowing the machine to glide forward and downward to the ground. The entire operation is based upon exactly the same principle as the flying of a kite.

There are four other airships in the Exposition Aerodrome which will be entered in the forthcoming contests. The first of these to arrive here was the T. C. Benbow airship, which was built and assembled at the

Carl Myers balloon farm at Frankfort, N. Y., and operated there until its evolution qualities were proven satisfactory. This is all ready for the contest, being kept inflated with hydrogen gas, which it holds for any length of time by means of a special machine, varnish invented and used by Prof. Myers.

Mr. Benbow's airship is driven by a 4-cycle gasoline motor of 10 horse-power and weighs 110 pounds, actuating four side-wheel propellers, with four blades each, which open and close at any point desired, so as to impel the gas spindle up, down, forward, backward, to the right or the left at the option of the operator. This gas spindle is 74 feet long and 21 feet in diameter, contains 14,000 cubic feet of hydrogen, and will support a weight of 900 pounds. The vessel made a very successful flight of several hundred feet two weeks ago, and now awaits participation in the contests.

The second airship to arrive here was that of Marcellus McGary, of Memphis, Mo., which has not yet been assembled or supplied with gas, and consequently has as yet made no trial performances here.

A third ship to arrive here was that of Mr. T. S. Baldwin, of San Francisco, Cal. This ship has just been assembled in the workshops of the Exposition Aerodrome, but has not yet been inflated. It has a 5-horse-power engine, and is of the same type as the Benbow ship, consequently many who have been favorably impressed with the preliminary flights of the former are expecting great things of Mr. Baldwin's vessel. This ship will be propelled by a two-bladed screw in the bow and guided by a rudder, a feature which the Benbow airship has had added to its facilities for steering since its experimental flight two weeks

ago. Another vessel which awaits assembling in the workshops of the Aerodrome is that of M. Hippolite Francois, from Paris, France, which consists of a framework built somewhat like a farmer's hay rack, which supports machinery operating two pairs of screw propellers upon each side, making four in all. A 30-horse-power automobile motor swiftly revolves these screws by pulley and belt connection, provided with loose pulley and clutch for starting and stopping. This vessel has no rudder, and is dependent upon the variable action of the screws on each side to direct its course as well as to regulate its speed. As the time for the final contests between these five vessels approaches, interest on the part of the general public increases perceptibly, and already crowds fill the Stadium to watch the trial flights of the different ships.

Recent large conflagrations in the business sections of several large cities have been the means of booming metal office furniture. Some desks and racks of metal, which underwent a severe experience at the Baltimore fire, were found to be practically uninjured after the fiery visitation but also to have preserved their contents. All of the troubles with the wooden furniture are said to arise from the warping and twisting of the wood entering into its composition. It is this and nothing more that puts a wooden desk out of service, the joints parting and the drawers becoming all awry. This cannot happen to the metal furniture and therefore its life of usefulness is said to be without end. Desks and cabinets of metal are claimed to take the place of the safe to a very great degree. It is not necessary for the bookkeeper to put his books all in the safe every night but simply to stow them away in his desk. This is not only a convenience but a saving in the matter of safes. The simple lines of these pieces are very pleasing and are approved from the sanitary standpoint. The articles are now made up in all the desirable shapes for general office use, including the desks of different shapes for various purposes and also cabinets of different shapes for filing drawers.

Luciano Butti, an Italian inventor, has designed a photographic apparatus by means of which it is possible to record 2,000 photographic impressions per second. This discovery will prove of inestimable value for the minute observation of insects and other creatures in rapid motion. The cost of the films approximates \$10 per 2,000 impressions, so that the apparatus will be somewhat costly in operation.