AN AUTOMOBILE HEARSE.

A lugubrious automobile novelty in the form of a motor-driven hearse has recently made its appearance in the streets of Paris. A nation that rejoices in the grim delights of trolley-car funerals is hardly justified in shaking its head at this latest application of the electric auto. After all is said and done, no very good reason can be advanced why a man should not be buried in a ceremonious and somber motor hearse, particularly in these piping motor times, when touring cars filled with tearful mourners are not infrequently seen in funeral processions.

AN ELECTRIC AUTOMOBILE HEARSE NOW IN USE IN PARIS.

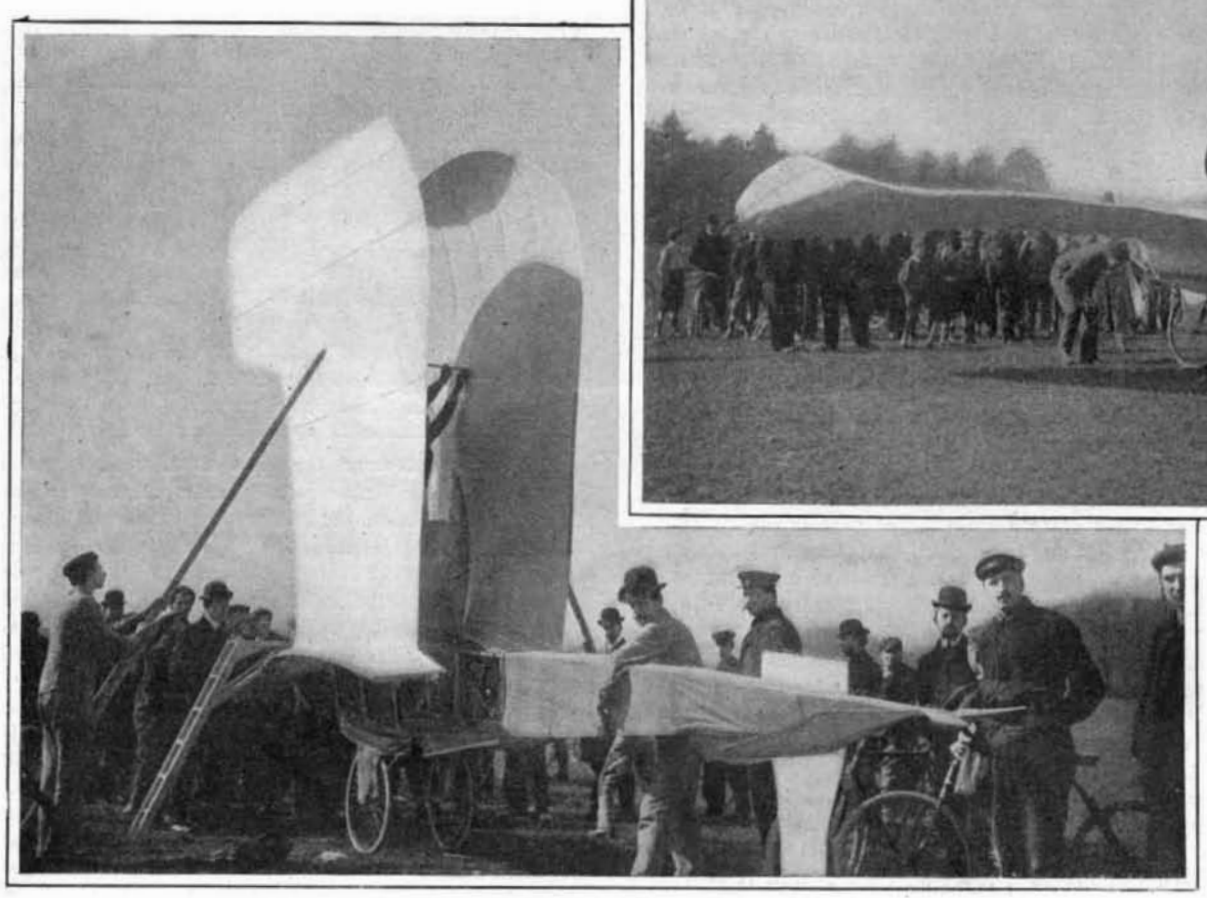
THE BLERIOT AEROPLANE.

BY THE PARIS CORRESPONDENT OF THE SCIENTIFIC AMERICAN.

M. Bleriot, a well-known Paris engineer, has lately re-entered the aeronautical field with an aeroplane of a new design. In its general lines it closely resembles a bird, with a central body, long tail and two large outspread wings, and it differs in many respects from the other flyers which have been brought out at Paris. Here there is but a single plane formed of the two flat wing surfaces. The skeleton frame of the apparatus is entirely covered in the present design, this frame being rigid as well as elastic. The general lines of the flyer are designed so as to give it as small a resistance in the air as possible, and to this end the covering is formed of a kind of parchment paper which is very efficient in reducing the air friction, owing to its polished surface. Some of the other arrangements of the flyer are quite ingenious. As will be noticed in the accompanying views, the body of the bird consists of a central portion which contains the motor and the aeronaut's seat in the front part, followed by a tail-like appendix which, like the rest, consists of a covered skeleton frame. The tail has the form of a quadrangular pyramid, tapering to a rather sharp point. At the rear end of the tail M. Bleriot has mounted the two rudders which control the flight, with the horizontal rudder consisting of a canvas-covered frame placed at the extreme end, while next it is the vertical rudder. Both the rudders are operated from the aeronaut's seat by means of universally-jointed rods connected to a single lever for both rudders. By working this lever, the rudders can be used together or separately as the pilot desires. Means are provided for changing the angle of the wings, and this is carried out by a lever which the pilot has placed between his knees. Thus either one of the wings can be raised or lowered at the desired angle, within certain limits. This will no doubt be a considerable aid in handling the flyer. One of the views shows the two wings folded up when the aeroplane is not in use, thus making it possible to occupy relatively small space when stored away. The form of the wings is also noticeable. They are somewhat enlarged at the ends and are curved upward at the tip. At the base, the width of the wing is 2 meters (6 feet 7 inches), and the total spread of the wings is 7.50 meters (24 feet 8 inches). The surface of the aeroplane is 13 square meters (139.8 square feet) and the weight is 260 kgs. (573 lbs.). As to the motor, it is located in the front end of the middle frame, and is of the 24 horse-power Antoinette pattern, which we have already had occasion to describe. The propeller is mounted in front on a short shaft, direct connected to the crank shaft. It is 1.6 meters (5¼ feet) in diameter. Two bicycle wheels are used to support the flyer on the ground. They are mounted on a common axle which is fixed to the middle part of the body.

The new flyer was recently put through its first experimental trials at the Bagatelle grounds in the suburbs of Paris, and these trials were quite remarkable in several respects. In the trial of April 5th the aeroplane was set in motion against a somewhat stiff breeze, with M. Bleriot piloting. After running for a few hundred feet on the ground, it rose to a height of two feet above the ground and was able to fly for a short distance, about twenty feet. But the aeronaut feared that it would be driven to one side by the wind, and so was obliged to bring it to the ground. What is brought out in this short flight is the general good performance of the apparatus and the small amount of power which is needed for flying, seeing that it has a motor of only twenty-four horse-power. In another experiment it was found that the aeroplane could be made to leave the ground with its small carrying surface of 140 square feet, without even using the whole power of the motor, the actual amount being estimated at sixteen horse-power.

After the trial on April 5, during which the axle connecting the wheels was bent upon landing, M. Bleriot strengthened his machine somewhat and added a third small wheel at the end of the tail in case the latter should drag when the machine is leaving the ground. He also increased the size of the forward horizontal rudder and doubled the surface of the vertical rudder at the rear. In another trial on April 8 the machine rose off the ground slightly when the horizontal rudder was directed upward, but a gust of wind upset it.



Attaching the Wings to the Aeroplane Upon Its Arrival at the Testing Place.

The wings of this aeroplane are formed of parchment paper applied to a suitable framework.

THE BLERIOT AEROPLANE.

The Bleriot Aeroplane With Its Wings Outspread.

Failure of Santos Dumont's Aeroplane.

After previously demolishing his new aeroplane in the first trial he made with it, Santos-Dumont, during the first week in April, refitted his 50-horse-power 8-cylinder motor to his old machine—"14bis"—with which he won the Archdeacon cup for a flight of 220 meters last November. After waiting several days for good weather, he at length attempted to make a flight in a light wind of but 5 or 6 miles an hour velocity. He succeeded in getting the machine up in the air after a run of about 100 feet along the ground, but it showed great lack of stability and lurched from side to side. After flying less than 200 feet, the machine made a sharp turn and the left wing touched the ground. Santos-Dumont attempted to counteract the sudden turning of the machine by a quick movement of the rudder, with the result that the rudder struck the ground and the machine collapsed. Its intrepid pilot escaped unharmed by ducking down in the basket. This trial has demonstrated anew the instability of a machine of this type.

The Delagrange aeroplane, on the other hand, in a trial on April 8, although it showed very good stability while in the air, was damaged when it struck *terra firma*. In this case, too, the slight wind that was blowing was said to have driven the machine forcibly to earth when the motor was stopped. The wheels and some of the tubes of the framework were broken. The flight was only 50 meters (164 feet) in length at a height of from 15 to 20 feet. A previous flight, on March 30, was 60 meters (196 feet) in length. In both instances the pilot, M. Voisin, cut off the ignition current and stopped the motor, fearing injury to the spectators.

While these experiments show that there are several machines in France capable of getting off the ground, and that this capability is confined to no one type, still they prove that the conquest of the air is not yet so near completion as some would suppose, and that there is much yet to be done before a successful flying machine will be evolved.

Razor Strops.

These are prepared from strips of linoleum of the usual length and width, left for 24 hours in a ⅛ to ¼ per cent. solution of hartshorn salt, to which 1½ per cent. of alum has previously been added, at the ordinary temperature; the strips are then dried at the normal temperature, rubbed with soap and polished with pumice stone. They are finally fastened in the usual manner to wooden handles. Strops made in this way will give a smooth sharp edge to the razor.