

AIRCRAFT

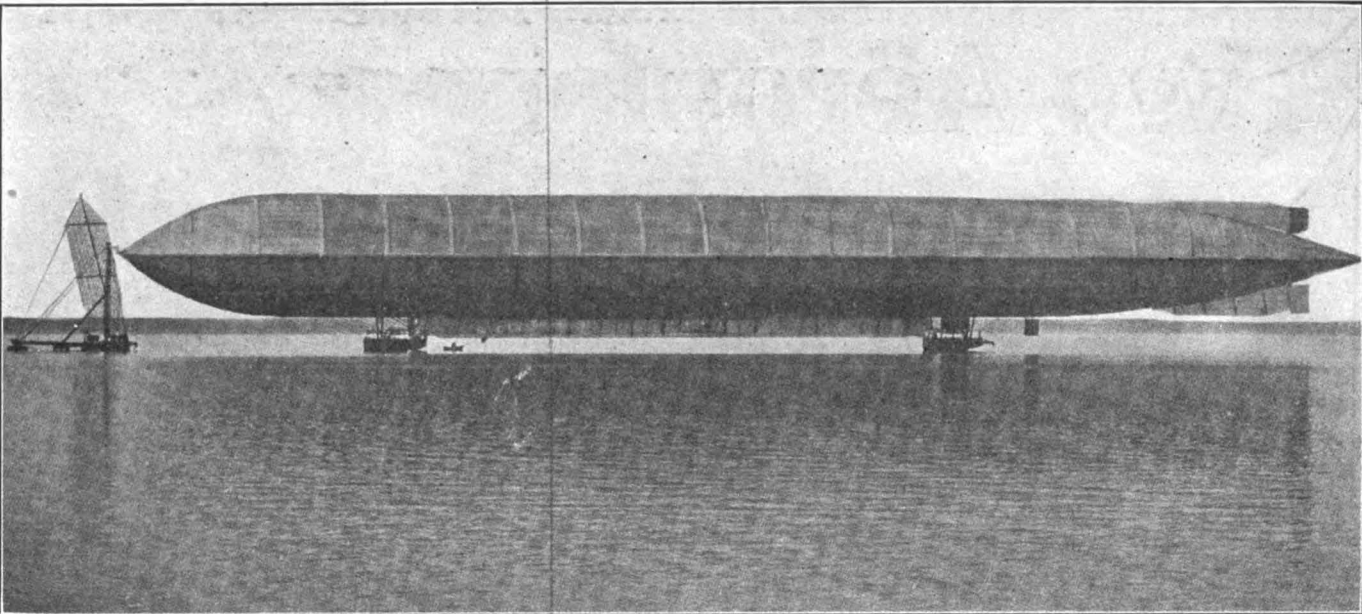
Vol. 2, No. 5

JULY, 1911

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**ANDRE BEAUMONT FLYING OVER THE HARBOR OF GENOA, ITALY,
IN THE PARIS-ROME-TURIN RACE**



The new British Naval dirigible No. 1, resting in her moorings in Cavendish Dock, near London. A full description and drawing of this airship was published in the April number of *AIRCRAFT*. This dirigible has just been completed, after two years of planning and labor, and the above is one of the first photographs taken. It will be noticed that the front end of the airship is blunt, while the rear end tapers away to a sharp point. Attention is also called to the novel method of anchorage and the windshield.

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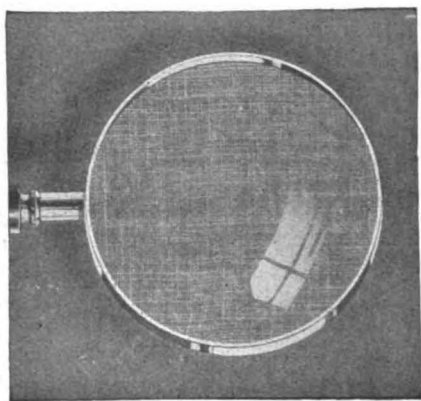
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AIRCRAFT

Vol. 2. No. 5

NEW YORK, JULY, 1911

15 CENTS A COPY
\$1.50 A YEAR

\$PORT\$MAN\$HIP—?

By Henry A. Wise Wood

THE time has come when the aeronautic fraternity in the United States must settle the correct orthography of the word, *sportsmanship*. It must be determined whether the dollar-sign shall prevail in its spelling—and in its practice—or the old-fashioned Anglo-Saxon form of the word be used in the terminology of flying, to express *the art of participating in sport for the love of sport*. In flying, of course, as in all other recreations, the dollar has its place—its legitimate place—but if flying is to be developed and survive as a sport, those who foster it must be clean of the charge that they have used it for profit. This is axiomatic; but even so obvious a truth needs sometimes to be shouted into the ears of people. Flying, like many another new-found gold field, has need of its vigilance committee,—and this must consist of those upon whom rest the responsibilities of the sport, whether they govern flying in a small community, or in the nation at large. Already many evils are afoot that need to be considered and dealt with, while still others are forming. To treat these effectively there must be lodged in the sporting authorities wisdom and power; and in their personnel freedom from interested motives, with an unselfish willingness to render service without return.

Fortunately there already exists an international body of unimpeachable character, which exercises supreme authority everywhere over the sport. According to its first statute the *Fédération Aéronautique Internationale* is "a Union of the Clubs governing aeronautic sport in their respective countries." By virtue of the sanction of this body alone can pilots receive and hold licenses, and competitions and trials for record occur; while, under its laws, "All competitions, record-trials, etc., not organized in accordance with these," (its) "rules are forbidden, and all contestants in such shall be disqualified." The general principles to be observed in the conduct of the sport of flying, as expressed in certain regulations, have been laid down by the F. A. I., and these its representative club in each country is authorized, and is firmly required, to enforce. In France the *Aéro-Club de France*, and in England and the British possessions the *Royal Aero Club of the United Kingdom*, represent and act for the *Fédération Aéronautique Internationale*,—while in the United States the *Aero Club of America* is its representative. But one club in a nation can exercise the powers of this body, as is illustrated by the fact that the *Aero Club of Canada*, for instance, can only affiliate directly to the *Royal Aero Club of the United Kingdom* in order that it should enjoy the benefits of recognition. In this respect the question has been asked, whether the prerogatives possessed by a national representative of the F. A. I. may not be exercised on its behalf by another organization. The answer is that they cannot; that its prerogatives are not transferable. The *Fédération Aéronautique Internationale* rigidly imposes upon its members the initial requirement that each shall be the sovereign

sporting power in its own country. As, it is obvious, there can be in each country but a single central authority, and this of necessity is the representative in that country of the F. A. I., it behooves those interested in the development of the sport to strive to do two things: they must labor to make of their sovereign club a body which is actually representative of the nation at large; and they must strengthen its hands to the end that the sport of flying may be dealt with in such a broad spirit that it shall become in every sense a national pastime, and rest upon a nation-wide structure of legitimately conducted industrial enterprises. It goes without saying that if the sport be energetically fostered by the good-willed co-operation of intelligent American sportsmen, regardless of their locality, and be by them kept clean of prostituting influences, it should quickly become a huge national asset.

The situation, therefore, would seem urgently to call for the coming together, under the auspices of our national club, of all those, in all sections of the country, who wish actively to co-operate in the sport of flying; in this new sport which has such amazing possibilities. Already a nucleus of strong and able men are gathering at the helm of aeronautics in this country; but many more are needed, so tremendous are the opportunities for service, and all who volunteer may count upon a cordial reception by those upon whom the national responsibilities at present rest. The movement needs active men who will contribute thought, or work, or money, or influence to its furtherance; it needs laymen, scientists, and sportsmen,—but it must be guarded against the charlatan, and those who fly false colors. The real-estate operator, the amusement-park man, the exploiter of questionable aeronautic enterprises all will come in the guise of sportsmen seeking power. These must be rigidly denied control of the sport. To suppress all who degrade it is the duty of the national club, which alone can exercise the summary powers of the international organization, and to its assistance should rally all who wish flying to be put upon a healthy sporting basis. It is to the necessity for widespread co-operation in the defence of the sport against spoliation that the writer referred, when he said that the time has come when the aeronautic fraternity in the United States must settle the correct orthography of the word, *sportsmanship*.

While the subject of *sportsmanship* is under discussion it should be pointed out that there is a field in flying for the sportsman of means which is as yet untouched, and which offers possibilities of the most attractive kind. Why should not one have a flying stable, and enter one's machines and pilots in national and international events? In this country airplanes are owned for the most part by professional flyers, who as a rule cannot afford expensive and well-groomed outfits. In a few instances only have sportsmen purchased machines; while even in these there seems to be a universal disinclination on the part of owners to fly. This leaves the practice of the sport in

America in a strange position. We all *believe* in flying; are glad to watch and encourage the sport; and occasionally purchase a machine, which we hasten to place at the disposal of anyone else who will use it,—but we ourselves do not take to the air. This hesitation is explicable, of course, in the light of the recent unfortunate American disasters; nevertheless this lethargic influence must be shaken off, and a start made in the direction of the development of the amateur side of flying. The institution of the flying stable, it seems to the writer, with its one or more pilots and its variety of craft, would be a very long first step

in the right direction. It would greatly add to the popular and pleasurable side of the sport,—while from owning an airplane, which is flown by one's pilot, to becoming an interested passenger, and, at one's pleasure, a driver, is to advance in the art by such safe and insensible degrees as to make this seem the correct method of developing the amateur. Not every sportsman, it is obvious, could afford such a luxury, but an inestimable advantage of the system would lie in the fact that one's friends also would share its privileges; while, in one way or another, its benefits would eventually extend to the amateur fraternity at large.

NINETEEN ELEVEN'S CUP-RACE

By G. F. Campbell Wood



VERY sport has its classic: "Racing" has its Epsom Derby; "polo" its International Cup; yachting its "America's" Cup; coursing its Waterloo Cup; motoring its Grand Prix de l'A. C. F.; motor-boating its Coupe des Nations; cycling its Grand Prix de Paris; rowing its Henley regatta; athletics their Olympic Games, etc., etc.; the latest and grandest sport of all: flying, has also its classic and, if it lacks the prestige of age, the Gordon Bennett Aviation Cup has nevertheless come to be recognized as the blue-ribbon event of the year in flying.

Donated by James Gordon Bennett in the last weeks of 1908—when Wilbur Wright was once and for all proving at Le Mans that human flight had really "arrived"—the Coupe Internationale d'Aviation was first contested for on Saturday, August 28th, 1909, at the first Rheims meet.

Against the formidable coalition of French fliers—Blériot, Latham, Lefebvre, Tissandier, etc.,—but one American ventured to compete, Glenn H. Curtiss. Driving an all-American machine of his own make: Curtiss biplane, Curtiss motor, Curtiss propeller, he defended the interests, prestige and honor of his country, his club and his firm in a manner which will never be forgotten by those who, in those dim, distant days of twenty-two months ago, were already following the startling growth of the new-born Art.

On not one single occasion did he alight where or when he did not desire to (a record shared only at that meet with Henry Farman and his Gnome-driven Voisin), and on no occasion did he make a false move, a mistake or an unnecessary effort throughout the eight days of the historical tournament.

Like the first contest for the Gordon Bennett Cup for balloons, the first Aviation Cup-race was thus won by the only compatriot of the Cup donor's to be in the race.

The Cup crossed the Atlantic, and on October 29th last, the Aero Club of America's team sought to defend the trophy against the challengers from the Old World. This it did not succeed in doing. The machines of the defenders, either in speed or in reliability, fell far short of those of Leblanc and of Grahame-White and the race was entirely between these two; Grahame-White achieved a magnificent victory, although the Frenchman's greater speed had made it appear unlikely until the latter failed to compete his final lap.

The Cup thus went to England and on July 1st, at Eastchurch, Isle of Sheppey, it will once more be contested for by defenders and challengers.

At this writing nothing definite is known as to the composition of the various teams, and little or nothing has been divulged concerning the exact peculiarities of the special machines built for the event.

It is known that the Bristol Company, which manufactures both biplanes and monoplanes, ordered some time ago one of the only six 140 H. P. Gnome motors to be turned out, but it seems likely that the fastest machines available for the defending team will again be French ones: Gustave Hamel is probably the best English Blériot driver and is looked on as a likely

candidate; on the other hand it is quite likely the Royal Aero Club's team will be the same as last year: Grahame-White, Ogilvie and Radley.

The challengers this year are the Aero Clubs of Austria, of Germany, of France and of America.

At this writing the members of the Continental teams are not named: it is expected one or more drivers of Etrich monoplanes will be named by Austria, while Germany will have several good men and machines to select from,—her most promising candidate being probaby Lindpaintner with his swift Farman.

France's elimination contests are now (June 5th) in progress: they consist in individual trials against the watch, to be made between June 1st and 20th, over the full Gordon Bennett distance of 150 kilometres on a course of a *maximum* perimeter of 5 kilometres (the Cup-race calling of course for a *minimum* perimeter of similar length). Candidates can make their trials when and where they please and as often as they wish, officials of the Aero Club of France being at their disposal to measure the course, time the attempt and man the pylons.

With the tremendous number of French flyers and of fast machines at their disposal, it is impossible to say who will make the team; Morane monoplane, because of Védérines' extraordinary averages across country, has a great reputation for speed; on the other hand it is hardly possible to believe that Blériot has not a Cup-racer in readiness to do him credit. The Morane is a shorter machine than the Blériot and logically should be a better circuit-racer, but the Morane drivers have had very little experience on small circuits. Védérines' only competitive flying in this line occurred at Florence some weeks ago; he can however have greatly improved since then, while, if Morane himself,—now fully recovered from his last year's accident,—should take the helm of one of his racers, the chance of the Borel-Morane machines would appear bright indeed.

Concerning the Blériot chances, it is very probable that Leblanc is anxious to personally achieve the victory which escaped him last year when practically within his grasp; it seems also likely that Lemartin, one of Blériot's crack demonstrators, may try for the team, or better still, Roland Garros, who looms up as a very likely Gordon Bennett Cup-winner indeed and whose victory would certainly please his many friends in America.

Other machines likely to be flown in trials for the team are R. E. P., Déperdussin, Nieuport and Bréguet, and it must be admitted that at this time the contest is absolutely open and might be won by any of these.

One representative only has so far been named by the Aero Club of America: Charles Terres Weymann; he will drive a Nieuport monoplane in the big event.

Recently the attention of the writer was drawn to a note which appeared in a New York Sunday newspaper to the effect that it was "evident that Weymann had no chance in the race." How utterly misleading this statement was can be gauged from the fact—which *remains*, whatever the future may bring forth—

that, were the race run off at the present time, Weymann would unquestionably start as logical favorite; the reason of this is not a very occult one, it is simply that Weymann is as skilful a small-circuit-flyer as the world has as yet known, and that the Nieuport at his disposal is beyond the smallest shadow of a doubt the swiftest machine to have flown up to this time.

In the next few days the Cup-racers may show themselves as fast, perhaps faster, but until then they are unknown quantities, while Weymann with the aid of a motor having just half the power of his Cup-racer recently smashed every world's speed record by several miles-an-hour.

The special Blériots and Moranes will of course go faster than the 35 H. P. Nieuport, but the Cup-racing Nieuport will be a different proposition from the present world's record-holder. Weymann's machine is fitted with one of the new Gnôme "seventies"; for various reasons these motors have not shown themselves as reliable as the famous "fifties"; with a "fifty" there would be little or no question of Weymann going the distance without a hitch and every partisan of an American victory should pray hard on July 1st that the more powerful and apparently less reliable engine keeps up to its work for the required seventy minutes (93 miles at 80 miles an hour).

The fact that these engines of larger bore do not run as smoothly may well influence those firms which intended using 140 H. P. Gnômes—which are "double seventies"—to content themselves with 100 H. P. motors, such as Grahame-White won the Cup with last year. Comparing the chances of good behaviour of the "seventy" and the "hundred," it is obvious that having fourteen cylinders instead of seven increases the chance of something happening; it is also generally held that the rear set of cylinders do not cool as efficiently as the forward set, staggered though they be, but it must be remembered that Grahame-White's "hundred" went without a hitch at Belmont Park, whether in his sixty-seven minute flight in the course of which he won the Cup or in the thirty-six minute flight of the dangerous Statue of Liberty contest or in the heat and final of the Grand Speed race, so that taken all in all the "hundred" and the "seventy" are pretty nearly on a par, for reliability.

And now the question arises, can a 70 H. P. Nieuport hold a 100 H. P. Morane or Blériot? It seems useless to speculate on the point without any basis of comparison, (although we know that a 35 H. P. Nieuport is faster than a 50 H. P. Morane). There is one thing certain, however, and that is that we all *hope* it can.

GENERAL STEPHANE BRUN

FATHER OF FRENCH MILITARY AVIATION

by Henry Woodhouse



WHILE the progress in French military aviation is the result of the work of a hundred men, the principal credit for having brought about the remarkable results is due to General Brun, the late Minister of War, who hardly lived to see the full development of his schemes, as he died on February 23d last. With untiring energy and continuous interest, he made aviation develop from an experiment to a well defined factor, occupying a distinct and important position in the military system.

When he first became interested in aeroplanes, aviation was just starting on its professional period. Some rather remarkable feats had already been performed, but the numerous failures tended to indicate that the achievements were more or less accidental. On the other hand the dirigible was well thought of and the strength of nations, in aerial matters was reckoned in dirigibles and the size of them. He knew much concerning dirigibles—and to that knowledge is perhaps due his turning to the aeroplane. However, when Germany's display of aerial Dreadnaughts made it necessary for France to follow suit, when the nationalists cried loud for action to lead Germany, General Brun thought he would try the aeroplane. That started a controversy and he was with the minority, for the spectre of the giant Zeppelins held the majority as if in a spell. To give his staff, most of whom favored the dirigible, an opportunity to study the matter and to get a good idea himself, he paid a visit to the aviation camp at Chalons, taking his staff along, and put the aeroplanes through a close inspection, even flying in the late Charles Wathcer's monoplane and Lieutenant Féquant's biplane. When all was over he pronounced the aeroplane a marvellous engine of war—and that practically marked the beginning of action.

How much personal interest he took in the matter is shown by the following incident: On July 14th, which is France's "Fourth of July," the army aeroplanes were not yet in use, but there had been planned to have four army dirigibles and three aeroplanes belonging to officers take part in the annual military review at Longchamps. On that day there was a heavy fog, and the authorities in charge of the aerial craft refused to let the eager pilots take them out of camp. After the review of the troops was over the President of the Republic and the King of the Belgians—and everybody else, for that matter—waited for the aerial exhibition, but in vain. After waiting a while, the

aircraft failing to put in appearance, every one left. General Brun, of course, understood the circumstances and did not find fault, but a colleague expressed a doubt as to whether what they had witnessed a month before were the true conditions. Perhaps it was just some fixed-up-to-look-nice affair, he suggested. General Brun did not call a commission to investigate; instead, he went to Issy, there and then, to see for himself. It is somewhat amusing that he met with difficulties when he tried to gain admittance to the aviation grounds. He was stopped three times by watchmen and had to show his Aero-Club card. When he finally was allowed on the grounds he turned towards the hangars. The watchman challenged him. "That's all right, my friend," said General Brun, stopping right there, "but will you kindly ask Lieutenant Camermman to come to see me?" Lieutenant Camermman was busy testing his motor, and not knowing who the visitor might be, sent word back that he was busy and would see the visitor after a while. Luckily some one had recognized the General and advised the Lieutenant, who then hastened to his superior and guided him on his inspection.

It is doubtful if any one with less skill than General Brun could have carried aviation to victory as he did. Considering the many difficulties and opposition he had to face, his feat was indeed monumental. As an illustration a tour-de-force of his may be mentioned, by which aviation was advanced many pylons. At the grand manoeuvres the aviation corps were composed of the best aiators, military and civilian. The uniformed civilians included such famous aviators as Louis Paulhan, who was a lieutenant of Reserves; Louis Bréguet, the successful aeroplane manufacturer; Hubert Latham, who was a *sapeur*, and a number of others. In less skilled hands the outcome would have brought dissatisfaction in either or both sides. Had he favored the reservists, to obtain better results, the military aviators would have been somewhat discredited and he would have lost some of the support of the military element, and the firms who supplied those aviators would have expected unlimited patronage. Had he favored the military, the reservists would have objected that they were put to all the inconveniences and the firms who supplied those aviators would have withdrawn their support. On the other hand, had he occupied the whole body of aviators, it is possible that their combined activities would have discredited the rest of the army which was not adequately equipped to oppose the new element, and would have been charged with

unfairness by the partisans of the dirigibles, who would have charged that the dirigibles were crowded out.

He handled the situation most admirably. The number of aviators on the field was limited, yet they were all occupied. Lieutenants Féquant and Cammerman, whose mastery of aviation would have made the employment of reservists unnecessary and might have overshadowed the achievements of the rest of the army, were dispatched to Bordeaux on a political errand which brought them no less honor, but did not interfere with the plans of the manoeuvres. Some of the most active reservists were daily occupied outside of the field, and those who remained were employed in a way as not to let their achievements overshadow the achievements of the military aviators.

When all was over he saw to it that all concerned were rewarded. Lieutenants Bellanger and Sido, whose activities had, indeed, been remarkable, having made several important reconnoissances, the first causing the capture of a division of cavalry, and had performed other important tasks, were promoted captains. Lieutenants Cammerman, Féquant and others were made *chevaliers* of the *Légion d'Honneur*. The members of the Re-

serves, including Latham and Bréguet, were also made *chevaliers* of the *Légion d'Honneur*, and the aeroplane manufacturers who had concurred in making the thing a success were rewarded with orders for aeroplanes.

By these tactics he placed military aviation at the head of French aviation and above commercial aviation; he won the people's faith to the cause and lifted French aviation from the exhibition stage to the practical stage. His splendid treatment of the military aviators encouraged them to better efforts, and the liberal rewards to the civilians elevated military aviation in the estimation of professional aviators so that now it is every aviator's highest hope to be dressed in military uniform. Of course, the dirigible did come out somewhat discredited, but it cannot be said that it did not get a fair show.

The passing of General Brun removes one of the most powerful champions of military aviation, but no doubt the progress will be continued in spite of the regrettable fate of his successor, the late Maurice Berteaux, another champion of French military aviation, who was killed by Train's monoplane at the start of the Paris-Madrid race.

Tremendous Profits in the Flying Machine Industry

In the May issue of AIRCRAFT we published balance sheets for 1910 of the Blériot and Gnome companies, showing net earnings of \$66,800 and \$355,824 respectively.

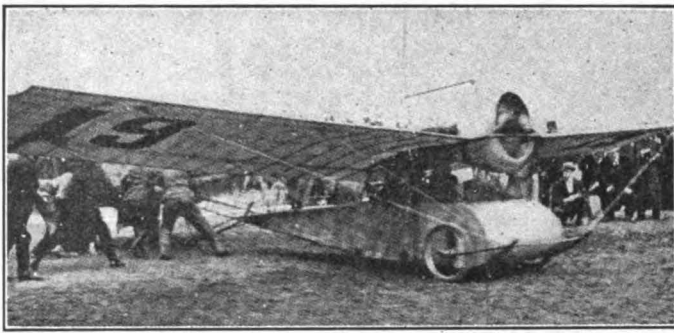
We have just received a balance sheet from Henry Farman, showing a net profit of \$138,106.70 from May, 1910, to May, 1911. These figures prove beyond doubt that the aeroplane industry has reached a practicable and profitable stage in France.

AIRCRAFT predicts that within five years there will be more than fifty aeronautical concerns in the United States, that will be able to show yearly, net earnings of over \$100,000 each. We advise all ambitious Americans, either with or without capital, to become actively engaged in the development of this wonderful new industry, while it is in its infancy. The chances of great success are much better for the individual seeking fame and fortune before it has dawned upon the average man that there is a new field of exploitation, and the big crowd starts in this direction.

Below will be found the balance sheet direct from Henry Farman of Paris:

Profits Made by Henry Farman at His Aeroplane Factory at Buoy, France

	May 15, 1910. Francs.	May 15, 1911. Dollars
Difference between the Credit and Debit of Merchandise:		
Credit	3,785,155.99	757,031.20
Debit	2,850,212.35	570,042.47
	934,943.64	186,988.73
Credit Balance of Profit and Loss Account.....	125,973.27	25,194.65
Goods on hand, as per Inventory, May 15, 1911.....	168,917.64	33,783.53
Gross Profit	1,229,834.55	245,966.91
To be deducted:		
	Francs.	Dollars.
Salaries	235,566.30	47,113.26
Packing and Transportation.....	19,286.65	3,857.33
Commissions	78,410.00	15,682.00
General Expenses	113,347.50	22,669.50
Legal Expenses	99,602.09	19,920.45
Advertising	39,267.71	7,853.51
Patents	2,910.00	582.00
	588,390.25	117,678.05
Prizes obtained at Meetings, etc.....	641,444.30	128,288.86
	49,089.20	9,817.84
Net Profits	690,533.50	138,106.70



THE TRAIN MONOPLANE STARTING ON THE FLIGHT WHICH ENDED SO DISASTROUSLY AT THE START OF THE PARIS-MADRID RACE.

FOREIGN NEWS

News from Asia

By A. F. B. SILVA-NETTO.

At Shatin, on the 23rd of March, 1911, Van der Born flew in the presence of a considerable number of people, the majority being schoolboys. He performed several evolutions and on his return to the spot where he started he was met with a slight mishap through the folly of a lot of schoolboys who rushed towards the hangar and aerodrome. Realizing the danger of a collision and possibly serious injury to some of the reckless spectators, Van der Born, who was traveling at a considerable speed, exercised his presence of mind and swerved his aeroplane with great celerity to avoid serious consequences. This gave very little space to land safely and the result was a collision in which the horizontal plane, the front spars and some of the struts got damaged. Luckily there was no damage to the motor and Van der Born fortunately escaped with a few bruises.

Another successful performance was made by Van der Born at Shatin on the 27th of March, when the aviator made two good flights.

All the arrangements were ably carried out by Mr. K. Offer, manager of the Far East Aviation Co., who had to surmount many obstacles in the way on account of the Government restrictions.

CANTON.—On April 28th, Van der Born made a successful flight at In Tong outside the city in the presence of the Chinese authorities and a large number of spectators. The enclosure on the aviation ground was filled with a few hundred spectators but outside the enclosure there were thousands who assembled to take a surreptitious view of the "Human Bird." Van der Born took a straight-away course and did not fly very high.

TRAGIC END OF THE TARTAR GENERAL.—On returning from the aviation field a sensational murder took place. H. E. Fu Chi, known as "Guardian of the Cantonese," was traveling in his sedan chair, after honoring by his presence the aviation meet given by the Far East Aviation Co., was suddenly assassinated by a man with a revolver. All the bodyguards and chair bearers fled on the first report of the firearm and the assassin fired three more shots at his victim. The assassin was arrested the same evening and has since been decapitated. The historical event set the ball rolling for the Cantonese revolutionaries, and the last emeute in Canton, which was practically an anti-Manchu demonstration, was crushed, but the revolutionary movement is still active in China and the native authorities are taking every precaution. In consequence of the above outrage the aviation meeting, which was to continue the following day, was abruptly stopped by the authorities. Thus the first attempt to introduce or demonstrate aviation in Canton ended under most inauspicious circumstances.

SHANGHAI.—Mr. Vallon, the pioneer of aviation in China, whose flying feats were attended with such a great success in Shanghai, met with a very tragic end. I enclose N. C. Daily News of the 8th inst, giving a graphic description of the fatal accident and its probable causes. Of course, it is not meet that an uninitiated should give his opinion, but it is believed one of the causes of the accident may be attached to loss in requisite velocity after the motor had stopped whilst planing and turning simultaneously, which is considered a difficult task. The probable causes advanced by Mr. Aveyard, who was formerly engaged in the British Army Balloon Factory at Aldershot, may be taken as correct, but how can it be explained that Mr. Vallon, who had been flying so successfully with the same biplane, which was so badly damaged in transit from France and repaired locally. From the same paper you will also find that great indignation was felt in Shanghai that the race meeting was allowed to continue after the tragedy.

By the death of Mr. Vallon not only has the

world and Shanghai lost a daring and intrepid aviator, but Hong Kong has again suffered another disappointment.

MR. GLEN CURTISS.—I understand that Mr. Curtiss will be communicated with, with a view to giving an exhibition in Hong Kong under the management of the Far East Aviation Co. Mr. Curtiss' latest hydroplane would be very useful for this place, the island and surroundings being hilly, exhibitions could be made from the harbor frontage, same as given in California. It is to be hoped that the local Government will stretch a point and allow aviation in the Colony.

JAPAN.—Late telegrams reveal some interesting facts concerning aviation in Japan, and a notable achievement should be recorded. At Tokorozawa Capt. Tokugawa, of the Japanese Army, made a successful flight in the presence of Prince Kitashirawa, many military officials and a large num-



BEAUMONT, THE WINNER OF THE PARIS TO ROME RACE, FLYING OVER THE RUINS OF ANCIENT ROME PRIOR TO LANDING AT THE AERODROME.

ber of spectators. After going around the grounds eight times the Bleriot monoplane ascended 800 feet. He took with him Lieut. Ito, who was seen scanning the horizon and the lower regions with glasses. The Captain and his passenger alighted safely after having gone round the ground thirty-four times or a distance of about forty-nine miles in one hour and nine minutes. It was a remarkable performance and all previous records (as far as Japan is concerned) were broken. It was Captain Tokugawa's third experimental flight and the flight was the most noteworthy yet accomplished in Japan.

Hong Kong, May 18, 1911.

England

On May 25th, an aviation pupil named Benson was killed at Hendon. He was trying to glide and the machine got out of hand and dove head first.

Great Britain's first naval aerial warship, the

Mayfly, was successfully launched on May 22nd at Barrow-in-Furness. The dirigible looks frail, but is really the strongest, largest, swiftest and most powerful in the world.

It is hoped it will be a valuable aid to the fleet in searching for the enemy's ships and reporting their movements by wireless telegraphy.

It will also be used in taking photographs of coast defences.

It will first be subjected to prolonged tests at Morecambe Bay for the purpose of ascertaining its behaviour in strong winds.

The airship, which is 512 feet in length, is of the rigid type, with a blunt nose tapering to a pointed stern. A feature of the construction is the provision for two separate gondolas for the engines. The airship is specially designed for naval purposes and can be moored on the water.

The outer covering of the upper half of the dirigible, which is 48 feet in diameter, consists of silk treated with a special waterproof dressing, over which aluminum dust has been sprinkled. The lower part of the bag is of yellow silk treated with the same waterproofing material, but without the aluminum. The framework contains eighteen gas bags filled with hydrogen.

James Radley, the English aviator, who took part in the Belmont Park meeting in this country, and later gave exhibitions here, has returned to England and has been flying at Huntingdon. He is building a new machine of his own design which will shortly be ready for trials.

The Aerial Navigation Bill. Text of the Measure

Mr. Churchill's Bill "to provide for the protection of the public against dangers arising from the navigation of aircraft," which he introduced in the House of Commons on May 25, has been printed. The bill is a temporary measure brought in with a special view to safeguarding the public who will witness the Coronation ceremonies from reckless aviation, and the areas which it is desired to safeguard during the Coronation ceremonies will subsequently be specified by regulation. The operative clauses are as follows:

Penalty on navigating aircraft to the danger of the public.

1. If any person navigates an aircraft recklessly or negligently, or in a manner which is dangerous to the public, he shall be guilty of an offence under this Act; and in determining whether an aircraft is navigated in a manner which is dangerous to the public, regard shall be had to the amount of damage to person and property likely to be occasioned in the event of a mishap occurring to the aircraft.

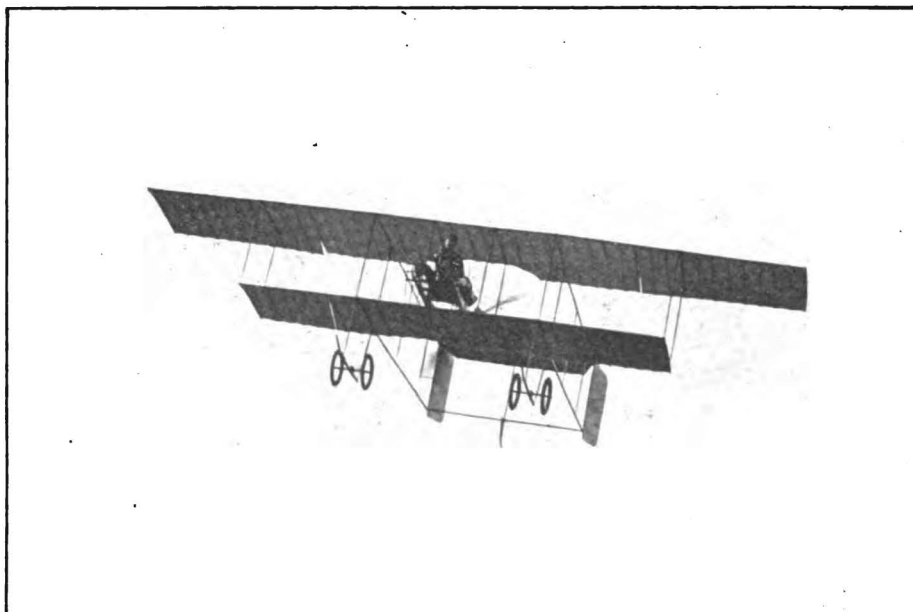
Power to prohibit navigation of aircraft over prescribed areas.

2.—(1) A Secretary of State may, for the purpose of protecting the public from danger, from time to time by order prohibit the navigation of aircraft over such areas as may be prescribed in the order, and if any person navigates an aircraft or allows an aircraft to be navigated over any such area in contravention of any such order, he shall be guilty of an offence under this Act.

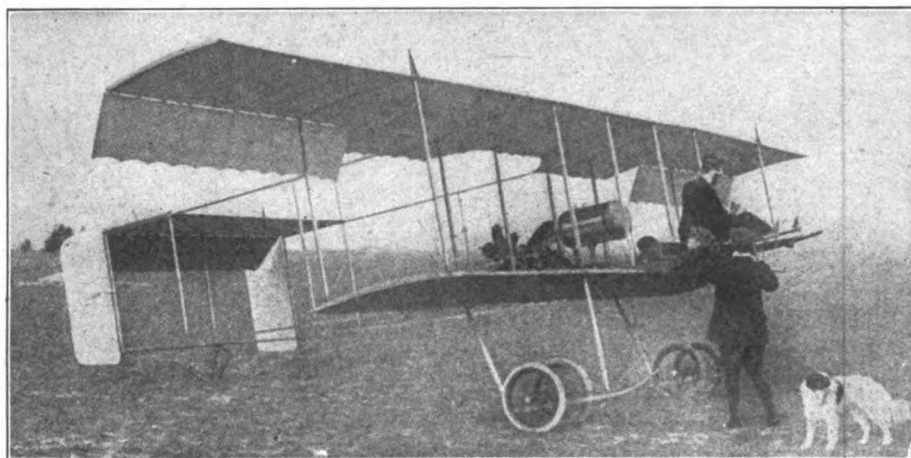
(2) Any such order may apply either generally to all aircraft or to aircraft of such classes and descriptions only as may be specified in the order, and may prohibit the navigation of aircraft over any such prescribed area either at all times or at such times or on such occasions only as may be specified in the order, and either absolutely or subject to such exceptions or conditions as may be so specified.

Penalties for offences.

3. If any person is guilty of an offence under this Act, he shall be liable on conviction on indictment to imprisonment for a term not exceeding two years, or to a fine not exceeding five hundred pounds, or to both such imprisonment and fine, or on summary conviction to imprisonment for a



THE NEW HEADLESS FARMAN BIPLANE IN FLIGHT.



The above photograph shows the latest Farman military biplane. The first and most noticeable point to be observed is the absence of the front elevator. In this machine the fore and aft equilibrium is obtained by the use of a tail elevator, which forms a hinged extension on the horizontal tail plane. It will be noticed that this elevator plane is of fairly high aspect ratio, as also are the balancing planes in the trailing edges of the upper main planes. The tail and the tail outriggers have a light workmanship appearance, and it can also be observed that the two rudder planes are in line with the elevator, so that the fixed tail plane is wholly in advance of all the moveable members. The machine is fitted with a Gnome Rotary engine. In the above photograph Mr. Farman is seen talking with Lieut. Menard.



André Frey, who completed the flight from Paris to Rome and made a plucky attempt to continue the flight from Rome to Turin, but met with an accident in the mountainous country intervening.

term not exceeding three months, or to a fine not exceeding one hundred pounds, or to both such imprisonment and fine.

Short title.

4. This Act may be cited as the Aerial Navigation Act, 1911.

France

Lieut. Menard on the new headless military Farman, illustrations of which appear on this page, established a world's record for both distance and duration with a passenger on May 25th when he flew from Mourmelon to Poitiers, a distance of 373 miles, in nine hours and fifteen minutes with only two stops en route.

The flight was accomplished in the following order: Left Mourmelon at 3 o'clock in the morning and stopped at Chartres at 5.45 for gasoline. He made another start at 6.15 and arrived at Vendome at 7.15, leaving that place two hours later he continued his flight to Poitiers where he landed at 12.15 P. M.

Describing the above event Marcel Violette, rédacteur of the "Vie au Grand Air," writes: On a new Henry Farman Military Aeroplane, Lieut. Menard having with him Lieut. Do-Hu of the Foreign Legion as a passenger, has undertaken a tour of France. The first stage was Chalons-Poitiers.

While the aviators were struggling in the Paris-Madrid and Paris-Rome-Turin race, the two officers with a more modest object, although far from being less useful, undertook a tour of France by long stages. Their aeroplane is the new Henry Farman headless biplane with elevation rudder at the rear, the equilibrium being obtained by placing the two passengers out in front of the main planes.

The tour is divided into the following stages: Chalons-Poitiers-Rochefort; Rochefort-Bordeaux-Pau; Pau-Toulouse-Narbonne; Narbonne-Nîmes-Marseille, Marseille-Valence-Lyon. When they have reached this last city the two aviators will take a few days rest before undertaking a raid on which they keep silent, but which will surprise the whole world if they succeed in their attempt. Such trials will do more for military aviation than many unsafe crosscountry flights."

Paris-Madrid Race

It is with sympathy and regret that we have to record the national loss sustained by France in the death of M. Berteaux, the Minister of War, who was struck down by the monoplane of M. Train when it became unmanageable at the start of the Paris-Madrid aero race on May 20th, and charged a group of officials, killing M. Berteaux, and injuring, though not seriously, M. Monis, the Premier, his son Antoine Monis, and H. Henri Deutsch de la Meurthe, the generous sportsman who has done so much for aviation.

Following the accident a judicial inquiry was set on foot to determine its exact cause and it is satisfactory to note that M. Train has been completely exonerated from all blame in the matter.

The following is M. Train's own explanation of the accident: "I started with the intention of making one or two circuits of the field, so as to be able to judge whether everything was going well, and to land in case any part needed attention."

As soon as I left the ground, I perceived the motor was not working well. I was about to land, after making a turn to one side, when I saw a detachment of cuirassiers crossing the flying field. I then tried to make a short curve to avoid them and to land in the opposite direction, but my motor at that moment failed more and more, and I was unable to undertake the curve. I raised the machine, so as to get over the troops and to land beyond them. At that very moment a group of persons, who had been hidden from my view by the cuirassiers, scattered before me in every direction. I tried to do the impossible, risking the life of my passenger to prolong my flight, and to get beyond the last persons of the group. I was about to land when the apparatus, which had been raised almost vertically, dropped heavily to the ground. I got out from the wrecked machine with my passenger, believing that I had avoided any accident. It was only then that I learned the terrible misfortune."

Like all other accidents, this one teaches a lesson, which in this case is that nobody except the few necessary officials and mechanics should be allowed on the flying grounds during a race of this kind.

Turning to the race itself, it can hardly be regarded as a great success, inasmuch as out of twenty-three entrants only a few started. Vedrines on a Morane monoplane, was the only competitor to arrive at Madrid, but both Garros and Gibert on Bleriot machines, reached Spain only to encounter hard luck and were eventually forced to give up.

The race was divided into three daily stages: First, Issy to Angoulême, 400 kilometres; second, Angoulême to San Sebastian, 353 kilometres; third, San Sebastian to Madrid, 462 kilometres.

Vedrines' time, stage by stage, was as follows:

Issy-Angoulême	3 h. 42 min. 18 secs.
Angoulême-St. Sebastian	3 h. 42 min. 19 secs.
St. Sebastian-Madrid	7 h. 29 min. 41 secs.

Total time in the air 14 h. 55 min. 18 secs.

Paris-Rome-Turin Race

By way of contrast to the Paris-Madrid race the start of the Paris-Turin race was accomplished without a hitch or an accident. Profiting from the lesson taught by the Issy disaster, special precautions had been taken to protect and control the crowd.

Unperturbed by the fate which had overtaken his predecessor, General Goiran, the new Minister of War, was present, accompanied by M. Emile Constant and M. Antoine Monis, son of the French Premier. In addition to the 21 entrants, a tabulated list of whom will be found on page 156, nine military officers had been commissioned by General Roques to follow the race as far as Nice and so there was quite an animated scene at Buc on the morning of the start. Previous to the start a little diversion was caused by the arrival of the dirigible "Astra-Torres" and two biplanes piloted by Pommier and Paulhan. At six o'clock on the morning of May 28 a bomb was fired to indicate the start and within 90 seconds Garros, on his Bleriot, was on his way. Less than a minute after Lieut. Conneau, who was again flying under the name of "André Beaumont" had started on his Bleriot-Gnome. The accompanying list shows the rapidity with which the first flyers got away.

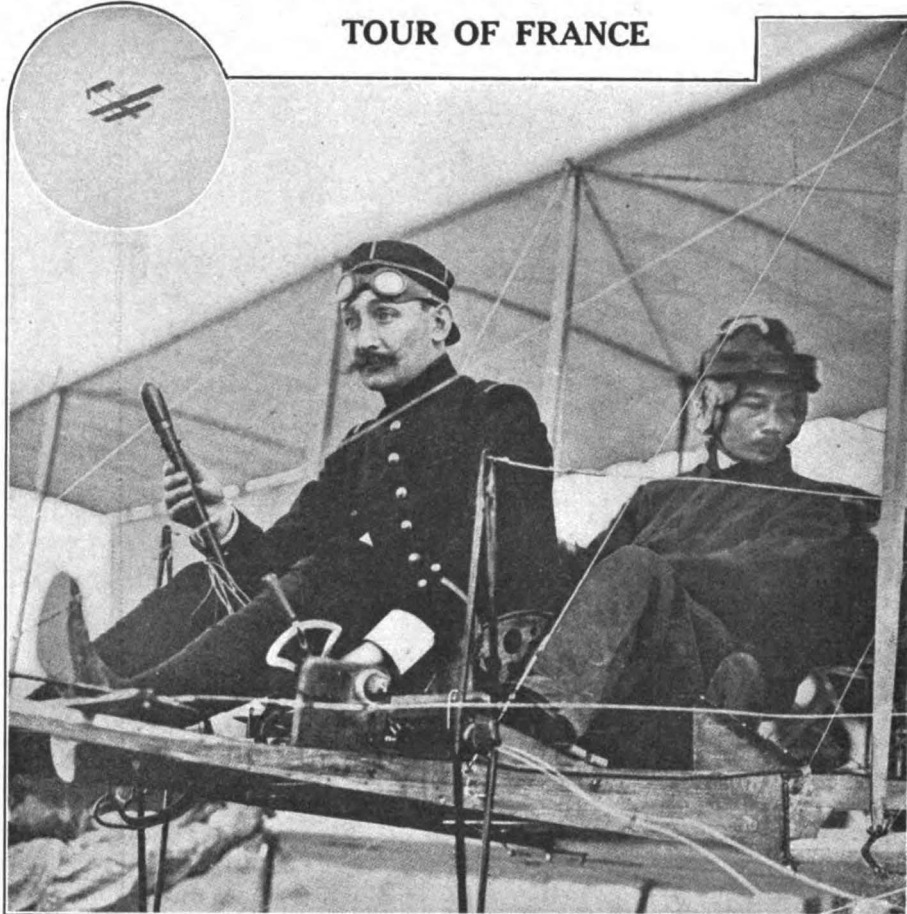
	H.	M.	S.
Garros (Bleriot)	6	1	28
Beaumont (Bleriot)	6	2	9
Vidart (Deperdussin)	6	3	27
Kimmerling (Sommer)	6	5	4
Manissero (Bleriot)	6	7	4
Frey (Morane)	6	8	41
Weymann (Nieuport)	6	8	52
Level (Savary)	6	10	36
Gaget (Morane)	6	12	27
Bathiat (Sommer)	6	16	47
Bielovucic (Voisin)	6	44	23
Molla (Sommer)	7	5	52

Dijon was the first compulsory stop and "Beaumont" was the first to reach there at 11.12 followed closely by Garros, who arrived 10 minutes later. Regarding the other competitors, Weymann had to land at Saclay and again at Melun owing to motor troubles. Bielovucic only got as far as Juvisy where motor troubles caused him to land, while Manissero got very little further. Bathiat landed at La Trombe, Level at Bray-sur-Seine, Vidart, Kimmerling and Weymann all stopped at Troyes, while Gaget, in making a bad landing at Venarey, smashed his propeller.

After a short rest at Dijon, both "Beaumont" and Garros set out to continue to Avignon. A stop was made at Lyon, where a large crowd had gathered to welcome the aviators, and during the morning they had been entertained with some fine flying by Legagneux, Hanriot and Berlot. At 3.28 "Beaumont" arrived and was given an enthusiastic reception, as also was Garros, who arrived shortly afterwards at 4.02. "Beaumont" restarted again at 4.14 and Garros at 4.46. "Beaumont" landed at Avignon at 6.49, while Garros arrived there at 20 minutes to 8. Both aviators decided to spend the night there.

Monday, May 29th, the second day of the race, was very unfavorable for flying, being windy, with a fine rain steadily drizzling. As there was no sign of any likelihood of improvement at Avignon, "Beaumont" decided not to postpone his start, and got on his way at 4 minutes to 4 in the morning, but Garros did not leave Avignon until 5.36 A. M. The weather affected the running of his engine so much that he was forced to make a stop at Mollemort, and descending, he smashed both the planes of his machine, but determined not to give up until every chance had gone. He at once motored back to Avignon and purchased another machine from Kuhlring. "Beaumont" was compelled by the elements to make a stop of six hours at Besse-sur-Issole. He restarted from there at 10 minutes to 4 in the afternoon and continued to Frejus, where he landed at 4.35. Two hours afterward he was again on his way and at 7.19 he landed at the Nice California Aerodrome, where he received a great reception, and was carried in triumph to a hotel. Meanwhile, Garros in his new machine, set out afresh for Avignon and made a splendid flight to Frejus, where he arrived soon after "Beaumont" had departed for Nice. After about a quarter of an hour's halt there, he was again in pursuit of his rival, and landed at Nice at 7.57. In regard to the other competitors, Kimmerling started from Troyes at 3.30 and reached his native town of Lyon at 8.15. Stopping for about an hour there, he then continued on to Avignon, which was reached a few minutes after noon. He stopped there for about an hour and then started for Nice, but was compelled by the wind and rain to come down at Brignoles at 65 Kiloms short of Nice. Frey, who had stopped over night at Dijon, started at 4.15, and arrived at Lyon about 8.15. Starting from there about an hour later, he lost his way, and came down at Valence. While making inquiries, he saw Kimmerling pass over head, and immediately set off in pursuit of him, reaching Avignon 10 minutes before him. Frey then decided to stop for the day. Weymann, the American, also started from Troyes, but only got as far as Celles-sur-Ouise, when, in coming down, he broke his Nieuport monoplane so badly as to put him out of the competition. Vidart, who also left Troyes at 5.30, continued with one stop at Chalons-sur-Saone, where the wind compelled him to make a stop. As this moderated he made a

TOUR OF FRANCE



Lieutenant Menard and Lieut. Do-Hu on the new headless military Henry Farman biplane, about to start on his great tour of France with a passenger under orders from the French Government. The first day (May 15) they flew from Chalons to Poitiers, a distance of 373 miles in 9 hrs., 15 mins.

Form 5 T. W.

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LAWSON AIRCRAFT NY

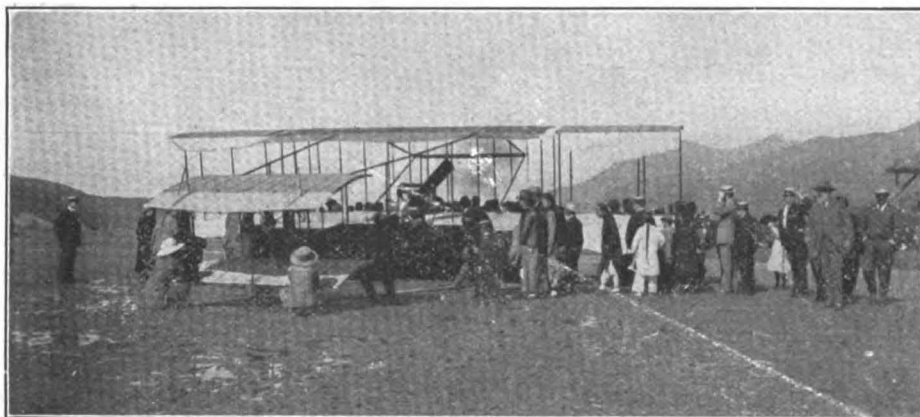
MENARD ON FARMAN BIPLANE BEATS ALL WORLDRECORDS FLYING
FROM CHALONS TO POITIERS WITH PASSENGER

FARMOTORS

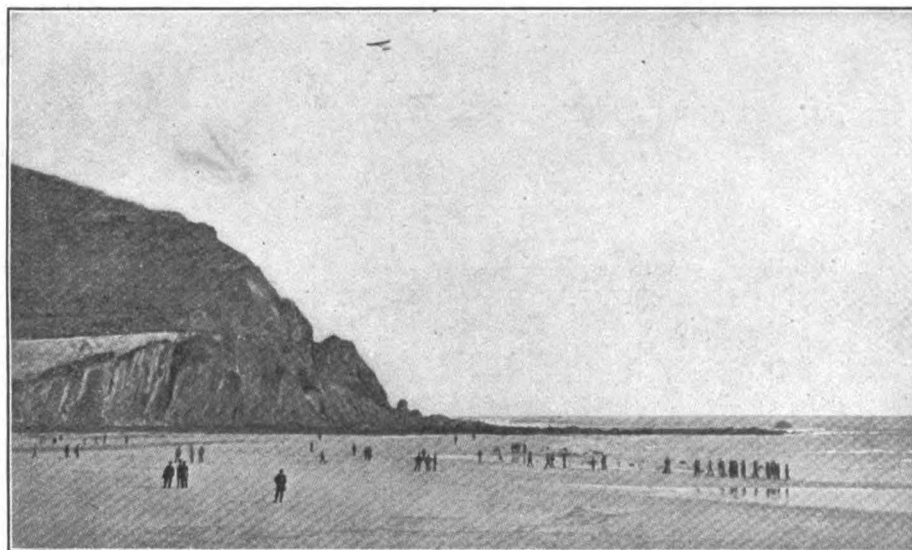
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CABLEGRAM FROM HENRY FARMAN TO "AIRCRAFT" AT THE CONCLUSION OF THE REMARKABLE FLIGHT OF LIEUT. MENARD AND PASSENGER FROM CHALONS TO POITIERS.



VAN DER BORN AT SHATIN, CHINA, EXPLAINING THE WORKINGS OF HIS BIPLANE TO SOME CHINESE GENERALS.



VEDRINE, THE WINNER OF THE PARIS-MADRID RACE, PASSING ABOVE THE MOUNTAIN OF IGUELDO UPON HIS ARRIVAL AT ST. SEBASTIAN.

fresh start late in the afternoon. Arriving at Lyon, he appears not to have recognized this place, and passed over it without noticing the aerodrome. As no signs developed of his making any attempt to land, Legagneux and Hanriot set off on their monoplanes and managed to bring him back to Lyon, where he landed at 6.26. Molla, who reached Dijon over night, got away from there at 9 minutes past 5, reaching Arbigny, where he was forced to land on account of the rain. As soon as the rain let up, he made a fresh start, and only got as far as Villeurbanne, where he attempted to make a landing and smashed up his machine.

On Tuesday, May 30th, the third day of the race, "Beaumont" prepared to continue the race from Nice, but his engine refused to work properly, and he decided to delay a start until a new motor could be fitted. Garros, however, started a few minutes before 5 and arrived at Genoa at 7.20. Leaving Genoa on a new machine, which Le Blanc had purchased for him, he followed the coast line to Spezia and reached Pisa, where he landed at a quarter to 12. Frey started from Avignon at 5 o'clock and arrived at Nice at 8.11 and did not get away until 2.36, when he continued his journey straight through Genoa, arriving at 5.39. Vidart left Lyon in the afternoon and reached Avignon at 4.30.

On Wednesday, May 31st, the fourth day of the race, "Beaumont" was the first to arrive at Rome, at 4.05, thereby winning the prize of \$20,000, which was offered for the first man to reach the eternal city. His reception at Rome was one of the greatest triumphs since the ancient days. The hills about the city and roofs, terraces, balconies and domes were black with people, who greeted him with wild cheers. Garros made a good start from Pisa, but between Cecina and Castagente, his machine fell and was considerably damaged. Garros decided not to give up and returned to Pisa, where he secured a new machine.

On June 1st, Garros, having obtained a new machine, set out from Pisa at 10.40 A. M. and followed the Mediterranean coast to Rome, where he arrived at 5.10, completely exhausted and ill from the injuries sustained in his fall near Pisa. Frey was the third to arrive at Rome, while Vidart arrived fourth.

Owing to the dangerous nature of the last stage of the route, which necessitated crossing the Apennine mountains, "Beaumont," Garros and Vidart decided not to attempt to continue to Turin. Frey, however, decided to start and on June 13th he set out from Rome, only to be caught in a violent wind storm which caused him to lose control of his machine, which fell head first and was completely wrecked. Frey was thrown from his seat and sustained serious injuries.

At the Buc Aerodrome, situated at about five miles from the city of Versailles, amateurs of aviation have the opportunity of flying under the guidance of one of the best Farman pilots.

These cross-country flights are made over fields and without any danger for the passenger; they constitute a real ride about the country.

These rides of about 10 kms. take place every afternoon, weather permitting, which means on an average of four days out of five.

PARIS—MADRID RACE.—Table of characteristics of machines entered.

Pilot and Machine.	Supporting Area.		Weight		Span.	Length.	Balancing.	Under-carriage.	Suspension.	Control.			Engine.				Propeller.					Flight Speed.	
	Sq. ft.	lbs.	Empty.	Flying.						Balance.	Elevator.	Rudder.	Make.	h.p.	Cyls.	Bore.	Stroke.	Make.	Dia. meter.	Pitch.	Blades.		Speed.
Védrines (Morane).....	187	440	770	30	8	22	0	W W & S	R	Lever	Bar	Gnome	70	7	130	120	Integrale	9	35	11	21200	77	
A. Frey (Morane).....	187	440	770	30	8	22	0	W W & S	R	"	"	"	50	7	110	120	"	8	75	5	21100	68	
Weymann (Nieuport)....	196	750	1100	33	0	27	10	W W & S	S	Pedal	Lever	"	70	7	130	120	"	8	10	6	21200	77	
Chevalier (Nieuport)....	196	720	1050	33	0	27	10	W W & S	S	"	"	"	50	7	110	120	"	8	75	5	21100	71	
P. Divetain (Goupy)....	235	440	770	19	10	23	0	F W & S	R	Wheel		"	50	7	110	120	"	8	75	5	21100	53	
Ladougne (Goupy).....	235	475	835	19	10	25	0	F W & S	R	"		"	70	7	130	120	"	9	35	11	21200	62	
Prince de Nissole (Tellier)	246	680	1100	38	8	36	5	W Wh	S	"		R. E. P.	60	5	110	160	—	—	—	—	1300	46	
Mamet (R.E.P.).....	214	880	1320	36	5	26	5	W W & S	R	& P Lever	Lever	"	60	5	110	160	Regy	8	14	10	21300	65	
Amerigo (R.E.P.).....	214	880	1320	36	5	26	5	W W & S	R	& P	"	"	60	5	110	160	"	8	14	10	21300	65	
P. Barillon (Barillon)...	160	480	1000	39	0	29	10	W W & S	R	Wheel	Bar	Gnome	50	7	110	120	Voirin	8	1	Var	21100	80	
Le Lasseur de Ranssay (Blériot).....	187	550	880	29	5	25	4	W Wh	R	Lever-wheel	Bar	"	70	7	130	120	—	—	—	—	1200	62	
Bobba (Goupy).....	288	510	835	29	10	23	0	F W & S	R	Wheel		"	70	7	130	120	Integrale	9	35	11	21200	59	
A. Beaumont (Blériot)...	187	510	835	29	5	27	0	W Wh	R	Lever-wheel	Bar	"	50	7	110	120	—	—	—	—	1100	59	
Garros (Blériot).....	187	510	835	29	5	25	4	W Wh	R	"	"	"	50	7	110	120	Integrale	8	75	5	21100	59	
Gibert (Blériot).....	187	510	835	29	5	25	4	W Wh	R	"	"	"	50	7	110	120	"	8	75	5	21100	59	
Train (Train).....	171	420	770	26	5	26	5	W W & S	R	Lever	"	"	70	7	130	120	"	8	10	5	21200	62	
L. Garnier (Morane)....	187	570	900	30	8	22	0	W W & S	R	"	"	Labor	70	4	100	120	"	9	35	11	21150	77	
Verrept (Morane).....	187	440	770	30	8	22	0	W W & S	R	"	"	Gnome	50	7	110	120	"	8	75	5	21100	68	
Lieut. Menard } (H. Farman) M. Dévé Capt. Etévé	750	1100	1800	53	0	43	0	F W & S	R	"	"	"	50	7	110	120	"	8	75	5	21100	46	
F. Barra (M. Farman)...	640	—	—	53 36	0 5	42	5	F W & S	R	Wheel	—	Renault	60	8	—	—	"	8	75	5	2	900	50
Lieut. Tretarre (Breguet)	394	1100	1600	46	6	27	3	W W & S	P	Wheel		R. E. P.	60	5	—	—	Regy	8	0.4	4	21300	56	

Notes.—W = Warping. F = Flaps. W & S = Wheels and skids. Wh = Wheels. R = Rubber. S = Springs.

The fee charged for each ride is two hundred francs payable in cash.

It is announced that the French Gordon-Bennett elimination trials are to be held at Douai. The Municipal Council has decided to accept the terms offered by the Aero Club of France and also to provide the necessary money.

Roger Sommer recently re-opened his Mourmelon school, and in order to deliver the necessary machines there Molla and Bathiat took turns flying them over from Douzy.

On May 18th, Pierre Marie Bournique, better known by his flying name of "Pierre Marie," ascended in a strong wind on his 100 H. P. Deperdussin with Lieut. Dupuis as a passenger. He had just completed one round of the course and had risen to a height of 200 feet, when the machine was struck by a squall and capsized. The machine fell head first to the ground and burst into flames. "Pierre Marie" was still alive and taken to the hospital, where, however, he succumbed to his injuries. His passenger was burnt to death before he could be extricated from the wreckage. Pierre Marie Bournique dies a victim of his own imprudence and recklessness, for he had been strongly advised not to attempt a flight in such a wind.

"Pierre Marie" was only 23 years of age and was an Alsatian by birth. His first successes as an aviator were scored on the R. E. P., and it was on one of these that he made a splendid flight of six hours at the close of last year in an attempt at the Michelin Cup.

On May 20th, Mme. Marthe Niel, while flying her monoplane at Gaillac-sur-Tarte, failed to negotiate a gust of wind and the machine fell heavily and was partially wrecked, but fortunately without seriously injuring Mme. Niel.

The new six-bladed Deperdussin monoplane which attracted considerable attention at the last London Aero Show, was given a try-out on May 25th by Vidart, who flew in it from Courcy to Mourmelon and back in 37 minutes, attaining a speed of over 100 k. p. h.

For the European Circuit the Farman works have entered a new type biplane designed especially for events of this kind and called the European Circuit type. It has a speed of 100 km. an hour and it was on a machine of similar type that Lindpaintner, the German pilot, won the Circuit of Saxony. The new machine will be piloted by Lorian, the well-known Farman aviator, who took part in the Paris-Bruxelles race and also was the first man to fly over Paris with a passenger.

Maurice Farman has also constructed a new type machine for the European circuit, which will be flown by Eugene Renaux, with Senouques as passenger, the team which won the Puy de Dome flight. The presence of M. Senouques assures this machine a formidable advantage over the others, owing to the fact that he has made many balloon ascensions and is able to follow the most difficult routes. It is thought that the harder the trial may be the more chance this team stands of winning.

At the Farman school at Bouy, in the presence of the aerial commission of the army, Lieut. Menard recently tested a new military type called Tour de France, which more than met all the requirements asked for by the military commission. It carried an extra load of 220 kilos., rose to a height of 320 metres in 4 minutes 45 seconds and attained a speed of 90 kiloms an hour.

Germany

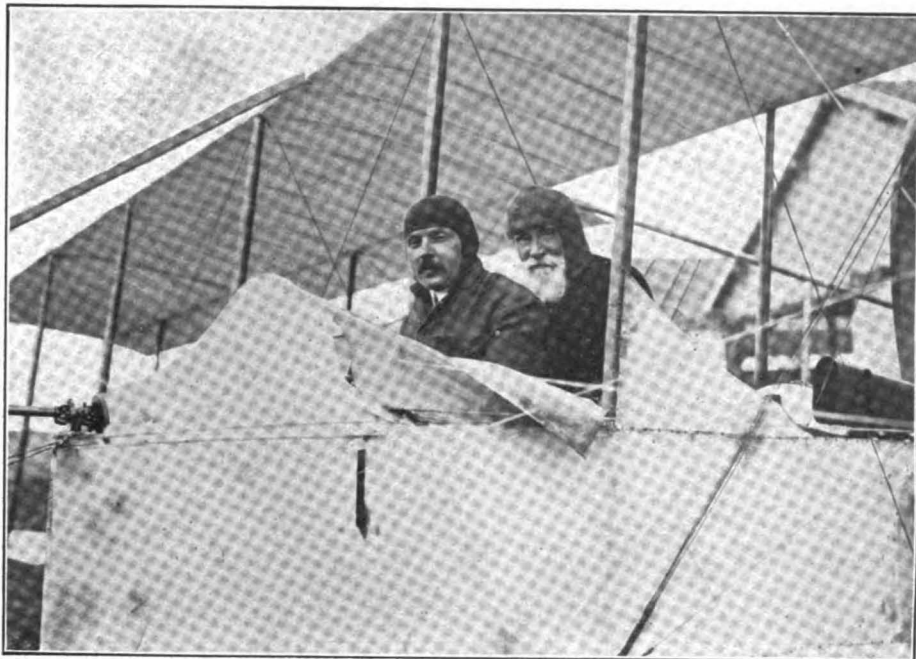
The German War Office is negotiating for the purchase of the new Parseval airship, at present undergoing its finishing touches at Bitterfeld. It will be known as "Parseval III," and is fitted out with two 200 H. P. Korting motors.

Helmuth Hirth set up a new German altitude at Camstatt on May 7th, carrying Lieut. Henke as passenger. He ascended to a height of 800 metres, easily beating Lieut. von Thunau's former best altitude of 600 metres. Hirth's machine was a 70 H. P. Etrich-Rumpler.

The first fatal accident at Berlin-Johannisthal occurred on May 11th, when Bockemüller, a Poulain aviator, collided with the post office erection on the ground, his chest being crushed by the wood work. The unfortunate young man died immediately. He joined the ranks of aviators about six months ago and was very popular.

The new "Deutschland" dirigible has met with a sudden end, as it was shattered on May 16th, whilst being taken out of its Düsseldorf hangar for a trip to Baden-Baden. The weather was extremely squally and a sudden gust tore the balloon away from the employees and dashed it against the roof of the hangar, from where the passengers, some ladies among the number, had to be brought down. The remains of the airship are now at Friedrichshafen and will be built up for the third time, as they comprised all that was left of the original Deutschland after its mishap in June, 1910, whilst carrying a load of pressmen across the Teutoburger Forest. It is a matter of wonder why the airship was taken out of the hangar, as the journey, which had been postponed once before, was not tied down to any special date, all the more so as the weather was so unfavorable.

Helmuth Hirth won the Upper Rhine Circuit from May 21 to 27, which led through the Rhine district from Baden-Baden to Frankfurt. Of all



MAURICE FARMAN AND HIS FATHER PREPARING FOR THE TRIP MADE RECENTLY FROM BUC TO ETAMPES AND BACK A DISTANCE OF 100 MILES.



The above photograph shows the cruciform tail comprising the elevator and rudder. On the trailing extremities of the main wings are hinged balancing ailerons. The span of the machine is 9 metres (nearly 30 feet) and the over all length 8 5/10 metres (28 feet). The starting area is 17 sq. metres (about 183 feet).



Although the name of Farman is inseparably associated with biplanes, Mr. Henry Farman has for some time past successfully experimented with a monoplane of his own design. We are now able to give the photograph of this machine, perhaps the most striking feature of the external appearance of the machine is the neat stamped-out casing that encloses the 50 H. P. Gnome Rotary air-cooled engine. Also, as may be observed, the entire rectangular body is covered with surfacing material.

the six starters Hirth (Etrich-Rumpler monoplane) was the only one to finish without a contretemps. Thelen (Wright), Brunhuber (Albatross), Jeannin (Aviatik) and Witterstaetter (Euler), all suffering accidents on the way, whilst Laemmlin was killed at Strassburg during the aviation meeting held there. Hirth won about \$15,000 in all, and the German War Office intends purchasing a machine of the above type. A

number of military men took part in the special contests for officers.

Germany is to buy four new military aeroplanes, the War Office having set aside \$25,000 for such purpose. The machines are to be chosen from among those successful in this season's competitions.

The aeroplanes are to be of German origin,

though the motor may be of foreign make, and they must be constructed in such a way that observations can be easily made from them. They are to prove that they can fly with a passenger at a height of 1,400 feet, because the War Office considers that in time of war this height must be reached in order that the observation officer may fulfill his task.

The War Office has offered prizes to the value of \$17,500 to be competed for in seven aviation meetings during the present year.

Italy

The Italian aviator, Cirri, while making an aeroplane flight at Voghera on May 28th, fell from a height of 650 feet and was killed.

Signor Cirri used a Bleriot monoplane. He had completed several evolutions when suddenly there was an explosion and in a moment the wings of the machine were on fire.

At the Florence meeting Renaux and Mlle. Dutrieux, on Maurice and Henry Farmans respectively, accomplished beautiful flights and were congratulated by the King and Queen of Italy. Mlle. Dutrieux won the cup offered by the Italian King. On May 13th, the last day of the meeting, Renaux won the speed prize, which was considered the most important event of the meet.

Japan

By Yonosake Shimadza.

Aviation has not yet progressed far in Japan; but Captain Hino and Captain Tokugawa have

made several successful flights with foreign machines—Wright and Farman biplanes, Bleriot and Grade monoplanes. Captain Tokugawa, who has the best record here, went fifty miles in one hour and five minutes. This flight took place twenty-three miles from Tokyo, at Tokoro-zawa, the only aviation grounds in the East.

Mr. I. Yamada has made an airship after his own design and has made repeated attempts with it; but has not yet succeeded in attaining good results.

Baron Iga is experimenting with a glider from which we may see developments later.

Mr. Moriba of Osaka has made the first successful flight on a monoplane of Japanese invention.

Lieut. S. Narabara—a naval architect—has been working at biplanes for some time. He tried his machine with an Anzani motor of 25 H. P. on the 30th and 31st of last October. Owing to defects in the motor only 10 to 15 h. p. could be obtained. It was also advertised as weighing 130 pounds, but in reality weighed 190. Consequently the results of Lieut. Narabara's flight were disappointing to himself and all interested. He has, however, made a second and a third biplane, one strong for practice, the other for speed. He is now preparing for another exhibition at Tokoro-zawa, as soon as the weather permits, and his friends have reason to anticipate a better reward for his untiring efforts, as he is using the famous Gnome 50 h. p.

Aviators coming to Japan should be apprised of the variable and strong winds prevailing here in

the spring and of the June rainy season. Our best weather usually occurs from the middle of October to the end of the year.

Russia

A British aviator named Smith, flying a Sommer machine, during an aeroplane competition at St. Petersburg on May 27th, fell from a height of 125 feet and was killed.

Spain

Mons. Vedrines, the winner of the Paris-Madrid air race, gave an exhibition at the Getafe Aerodrome on May 28th, in the presence of the King and Queen and other members of the royal family. The King decorated the French aviator with the Order of Naval Merit.

Mons. Vedrines also flew from the aerodrome over the city of Madrid at a height of about 700 feet. King Alfonso and the Queen watched the evolutions of the aeroplane from the roof of the royal palace. More than 20,000 persons gathered in the Plaza de Oriente and cheered wildly as Mons. Vedrines passed over their heads in the air.

A banquet was given by Senor Camalejas, the Premier, for Mons. Vedrines in the evening. Several high officials of the government and municipality were present. Senor Gasset, of the Cabinet, representing the King, proposed the health of the daring aviator.

The French Club of Madrid gave Mons. Vedrines a luncheon and the Aero Club of Madrid presented him the King's Cup.

PARIS—ROME—TURIN.—Table of characteristics of machines entered.

Pilot and Machine.	Supporting Area.	Weight		Span.	Length.	Balancing.	Under-carriage.	Suspension.	Control.			Engine.				Propeller.					Flight Speed.	
		Empty.	Flying.						Elevator.	Balance.	Rudder.	Make.	h.p.	Cyls.	Bore.	Stroke.	Make.	Dia. meter.	Pitch.	Blades.		Speed.
	sq. ft.	lbs.	lbs.	ft. ins.	ft. ins.												ft. in.	ft. in.	r.p.m.	m.p.h.		
Niemela (Nieuport).....	196	750	1100	33	0 27	7 W	W & S	S	Pedal	Lever		Gnome	50	7	110	120	Integrale	8 7 5	5	2	1100	72
Bathiat (Sommer).....	182	580	900	34	9 29	8 W	W & S	R	Lever	Bar		"	50	7	110	120	Rapid	8 6 5	4	2	1100	59
Lemasson (Caudron)....	235	550	880	26	4 26	4 W	W & S	R	"	"		Anzani	60	6	105	125	Normale	"	"	2	"	59
Vidart (Deperdussin)....	150	495	825	29	0 29	0 W	W & S	R	Wheel	"		Gnome	50	7	110	120	Rapid	8 3 5	4	2	1100	62
Molla (Sommer).....	182	580	900	34	9 29	8 W	W & S	R	Lever	"		"	50	7	110	120	"	8 3 5	4	2	1100	59
Beaumont (Blériot).....	187	505	835	29	4 26	8 W	W	R	"	"		"	50	7	110	120	Integrale	8 7 5	5	2	1100	59
Tetart (Bristol).....	454	800	1100	34	9 38	7 F	W & S	R	"	"		"	50	7	110	120	"	9 3 5	4	2	1100	50
Bielovucic (Voisin).....	342	1100	1590	36	4 34	9 F	W	S	Bar	Wheel		"	70	7	130	120	Voisin	8 7 6	7	2	1200	62
Lusetti (Morane).....	187	440	770	30	7 22	1 W	W & S	R	Lever	Bar		"	50	7	110	120	Integrale	9 3 5	4	2	1100	62
Kimmerling (Sommer)...	182	580	900	34	9 29	8 W	W & S	R	"	"		"	50	7	110	120	Rapid	8 6 5	4	2	1100	59
Landron (Autoplan)....	288	790	1140	36	4 29	8 F	W & S	R	"	"		Labor	70	4	100	160	Integrale	9 10 6	7	2	900	50
Vedrines (Morane).....	187	790	1140	30	7 22	1 W	W & S	R	"	"		Gnome	50	7	110	120	"	8 7 5	5	2	1100	62
X—(Ch. Joly) (Voisin)...	450	1100	1540	36	4 34	9 F	W	S	Bar	Wheel		"	50	7	110	120	Voisin	8 0 5	4	2	1100	50
Level (Savary).....	555	1210	1540	46	3 29	8 F	W & S	R	Lever	Bar		Labor	70	4	100	160	Integrale	8 10 6	7	2	800	56
Gaget (Morane).....	187	440	770	30	7 22	1 W	W & S	R	"	"		Gnome	50	7	110	120	"	8 7 5	5	2	1100	68
Tabuteau (Bristol).....	454	800	1100	34	9 38	7 F	W & S	R	"	"		"	50	7	110	120	"	9 3 5	4	2	1100	50
A. Frey (Morane).....	187	440	770	30	7 22	1 W	W & S	R	"	"		"	50	7	110	120	"	8 7 5	5	2	1100	68
Garros (Blériot).....	187	505	835	29	4 25	0 W	W	R	"	"		"	50	7	110	120	"	8 7 5	5	2	1100	59
Prince de Nissole (Tellier)	256	680	1100	39	0 36	4 W	W	S	Wheel			R. E. P.	60	5	110	160	"	"	"	"	46	
Weymann (Nieuport)....	196	750	1100	33	0 27	7 W	W & S	S	Pedal	Lever		Gnome	70	7	130	120	"	8 10 6	7	2	200	78
Manissero (Blériot).....	187	505	835	29	4 25	2 W	W	R	Lever	Bar		"	50	7	110	120	"	8 7 5	5	2	1100	59

Notes.—W = Warping. F = Flaps. W & S = Wheels and skids. Wh = Wheels. R = Rubber. S = Springs. P = Pneumatic.

Airswirls and Their Relation to Aviation

By D. E. CONNER.

Whatever may be the result of the hasty conclusions of "aviators" of the present time concerning the so-called "swirling air-holes" above the earth, the future may decide that electro-magnetism is the main factor to be considered.

That atmospheric electricity, both positive and negative, are always present and mingling with the highly magnetic oxygen of the atmosphere appears to be a fact well settled by scientists.

And what electricity brought into contact with magnetic materials will do, is abundantly attested in our daily experience.

But the ever-present, positive and negative electric atmospheric forces, under ordinary conditions, does not appear in nominal equilibrium until some elemental change brings a sporadic excess of more or less electric force, which immediately takes its natural direction in this latitude, northeasterly, rotating in the opposite direction to that of the hands of a watch. We now know that all the electric forces coming from the so-called inter-planetary space, upon reaching the atmosphere of the earth and its highly magnetic oxygen, set up a rotation in the opposite direction from that of the hands of a watch, in the Northern Hemisphere.

Violent whirlwinds, waterspouts, tornadoes and lightning strokes, etc., obey the same law.

The more violent and excessive the contact of electric and magnetic elements above, the shorter and more direct is their descent to the earth, suggesting the existence of "swirling air-holes."

These conditions now need but little proof, as our tornadoes, in the absence of some local obstacle deflecting them from their natural courses, invariably move towards the northeast, and rotate

in the opposite direction to the hands of a watch, thereby agreeing with the rotatory motion of the earth, viewed from its positive, or north pole. Therefore, these so-called "swirling air-holes," consisting of a combination of electro magnetic fields, that had encountered no obstacle in the upper atmosphere to disarrange and break up their poles, find their first obstruction by coming in contact with an aircraft, resulting in immediate change of natural conditions by a possible disarrangement of their poles, and accidentally a sudden confusion of adjoining air-currents.

This appears to have been exactly what occurred recently upon the "Dominguez Aviation Field" in Los Angeles, California, that resulted in a tragedy. It is evidently well settled, when from accident, or any abnormal electro-atmospheric conditions occur, forcing the negative pole of an electro-magnetic field lower—or, in other words, nearer to the magnetic axis of the earth—than its positive pole, electro-magnetic force immediately ceases, and thereby leaves an aircraft at the mercy of the necessarily resultant commotion of the atmosphere, for which a remedy may yet be found.

Yet, in the Southern Hemisphere, many of the above described conditions appear to be reversed. South of the equator—or the apparent path of the sun around the earth, where all electro-magnetic forces, approaching the earth from the so-called interplanetary space come, rotating in the same direction as that of the hands of a watch and move towards the southwest, thereby agreeing with the rotatory motion of the earth, viewed from its negative, or south pole.

In keeping with these general laws the writer obtained some practical proofs, by a personal correspondence with United States consuls stationed in the Southern Hemisphere—at Samoa, Australia, New Zealand and the Argentine Republic. Every

reply cordially endorsed the writer's suggestion that all tornadoes occurring in the Southern Hemisphere rotated to the right—in the same direction as that of the hands of a watch, and moved towards the southwest. The British astronomer at Sydney was one of the writer's endorsers by personal letter.

The Samoa representative explained the destruction of the American and German warships in that harbor in 1889 as having been caused by a tornado, some miles at sea, that moved towards the southwest, rotating to the "right hand," in the direction of that of the hands of a watch.

If the sun is a great dynamo, with incidental heat, as suggested by scientists, it would be supposed to furnish the earth with all its primary electrical currents, that begin and end at the sun. Such currents must reach the nearest parts of the earth at the equator, or, to be exact, upon the apparent path of the sun around the earth. From this base-line the positive circles the earth, to the north pole, rotating in the opposite direction from that of the hands of a watch, and the negative circles the earth to the south pole, rotating in the same direction as that of the hands of a watch, resulting in both rotating in the same universal direction, tending to enhance the revolution of the earth from west to east, just as it does rotate.

As a conductor for electric currents, the earth, from its equator to its poles, decreases in size and capacity, until the concentrated excess of electric forces at the magnetic poles explode into Aurora Borealis and Australis.

These facts may be lightly rejected, but a lengthy experience and observation of results amount to conviction occasionally. When one has frequently seen tornadoes from great heights come roaring towards the earth, swirling in the opposite

direction to that of the hands of a watch, and upon reaching the surface of a level prairie take northeasterly courses, rotating everything—fence-rails, shingles, etc., from wrecked cabins—in the same direction, to say nothing of the remaining grass and weeds that are left lying in evidence of the course of the rotating storm—and if any one still doubts such testimony—they must indeed be skeptical reasoners. Even in a prairie such electric tornadoes universally follow the low places, the depressions that lie northeasterly, until the ravine changes its course, leaving the rotatory force of the tornado in contact with higher ground, which disarranges its poles, and ends or weakens the storm.

It requires a tornado of strong electric force

to cross a high ridge of ground, and when it occurs it is sure to ascend along some ascending ravine and cross the high ground at its lowest place.

The writer once saw a well developed tornado moving along a small valley lying northeasterly until it reached a large pile of old iron, the remains of a dismantled saw-mill.

At the first contact with the iron pile the tornado appeared to pour into the ground as promptly as water escaping into a sewer-sink, and ceased all action immediately, leaving only a wild commotion in the atmosphere, scattering the debris collected by the tornado in all directions.

There are simple but no less potent proofs of these natural conditions constantly in evidence.

A lightning stroke, cutting a groove down a standing tree trunk, leaves all the fine wood fiber adhering on the negative side of the groove, plainly indicating the direction of its rotatory force. It is simpler still to fill a stationary wash-bowl with water and then pull the plug out of the bottom and witness the escape of the water, swirling in the opposite direction to that of the hands of a watch, like the so-called "swirling air-holes" discovered above the earth by "aviation" reporters.

Many similar and corresponding facts are plainly demonstrated by the growth of vegetation.

DESCRIPTION OF THE PARIS-ROME TYPE OF BLERIOT MONOPLANE

By W. H. Phipps

The Bleriot monoplanes used by Beaumont and Garros in the Paris-Rome-Turin race were of the improved 1911 cross-country model. As a type they differ but little from the machine used by Louis Bleriot in his historical flight from Calais to Dover on July 25th, 1908. Since that date up to the present time M. Bleriot has adhered to his cross-channel type and his more recent successes have been due more to the adaptation of the Gnome motor and refinements in construction than to a distinct change in design.

Unlike the older Bleriot the new machines are fitted with a single "V" shaped support for the upper wing wires, instead of the double "V" as formerly used.

There is also a long, sloping hood, entirely covering the engine, tanks and controls. This is a distinguishing feature of the new type and acts as a most efficient wind shield, besides adding to the racy appearance of the machine.

Every accessory which it was thought would be of aid to an aviator is fitted to these models. In front of the pilot is a map holder so arranged that by simply turning a knurled wheel the aviator can move the map and follow the country as he passes over it.

The map unrolls from one cylindrical rod and rolls up on the other. It has a glass cover for protection, and is made of aluminum throughout.

An electric speed indicator is fitted to the Gnome motor and so mounted that the pilot can tell at all times whether his motor is keeping up to its proper speed.

On the right of the aviator's seat is a level indicator. It is an ingenious device containing a red liquid in a triangular glass tube which is mounted in an aluminum bracket. It enables the pilot to tell whether he is climbing, falling or flying horizontally and therefore is a great aid in adjusting the tail elevators.

Turning now to a description of the machine itself the main fuselage consists of a box girder 23 feet long. Four slender wooden booms run the length of the machine and these are strengthened at intervals of 18 inches or more by uprights and cross pieces held and braced by diagonal wires anchored to U bolts, which also secure the wood struts as shown in an accompanying illustration. (Fig. 1.)

This system of construction and the use of the U bolts is patented by M. Bleriot. At the rear the four main booms come together to join a stern post to which the rear rudder is hinged. They gradually open out towards the front to admit of the seat and engine.

The longitudinal members of the fuselage are

either of ash or red pine, the latter being apparently rather more common nowadays than the former. They do not each consist of one long piece but of two joined between the vertical struts marked C and D by a square steel tube, which is a fixture, and not intended to provide a means of packing up the machine into a small space.

At the front the fuselage longitudinals are as nearly as possible $1\frac{1}{4}$ inch square, and taper uniformly down to $\frac{3}{4}$ inch square in section at the extreme rear, where the top and bottom pairs converge, respectively, to a point.

The vertical and horizontal crosspieces of the fuselage are of oval section, except at their extremities, where they are rectangular, and are assembled as shown in Fig. 1. Their sizes are as follows: A and B, 2 in. by $1\frac{1}{4}$ in.; C, 2 in. by 1 in.; D, $1\frac{1}{4}$ in. by 1 in.; E, $1\frac{1}{4}$ in. by $\frac{3}{4}$ in.; F, $1\frac{1}{4}$ in. by $\frac{3}{4}$ in.; G, $1\frac{1}{4}$ in. by $\frac{3}{4}$ in.; H, $1\frac{1}{4}$ in. by $\frac{3}{4}$ in.; I, $\frac{3}{4}$ in. by $\frac{3}{4}$ in.

The tubes for the support of the wing-warping mechanism under the cloche (bell-drum) are $\frac{3}{4}$ in. diameter, and about 12 gauge.

In Fig. 1 is shown how the fuselage is constructed, which is certainly an extremely light and strong piece of work that in many respects could scarcely be improved. The vertical and horizontal struts are lightly mortised into the longitudinals, and being compression members require nothing further to hold them in position. The rectangular ends of the struts are deeply grooved to allow room for long U-shaped bolts, which pass through the longitudinals and form an anchorage for the stay wires, which are secured in the usual manner and are furnished throughout with turnbuckles.

The spread of each main wing is 13 ft. 6 in., the chord 6 ft. 8 in., and the total span 29 ft. 4 in. The wings are built up on two ash main spars as shown in Fig. 2, the front one of which is channelled out for lightness, and is about one foot behind the leading edge. The ribs are of I section, and are built up of three separate strips of wood, the middle one forming the web, being hollowed out as shown, while the whole is strengthened by the use of several subsidiary spars which serve also to prevent the fabric sagging from its designed curvature.

The front spar is secured to the fuselage by being fitted into one end of a steel tube, which forms a cross member of the latter (see Fig. 3), whilst the rear one is supported in a special cast aluminum box (Fig. 6), which caps the vertical member B. The older Bleriot practice was to use a much broader vertical member and thrust a spar through a hole cut in it, but the more mod-

ern attachment is certainly a great improvement in every way.

In Fig. 5 is illustrated the general arrangement of the landing chassis and the introduction of a diagonal strut between the lower "buffer-beam" and the fuselage. These upper and lower beams are each 5 in. wide by $\frac{3}{4}$ in. thick and are chamfered to approximately streamline form, except at the joints where they are left rectangular in section. The middle vertical members are 3 in. wide by $1\frac{1}{4}$ in. thick at head and foot and 4 in. wide by $1\frac{1}{4}$ in. in the middle, where they are attached to the fuselage longitudinals. The diagonal to the fuselage is 3 in. by $1\frac{1}{4}$ in., and of oval section. The distance piece between the wheel hubs is a hollow spar, $1\frac{1}{2}$ in. diameter in the middle, and tapering to either end. The upper extremities of the steel slide rods of the landing chassis are braced to the middle portion with stout steel ribbons.

In Fig. 3 is given a more detailed view of part of the landing chassis, and this figure also shows how the Gnome engine bearers are attached to the fuselage. The necessity for making this particular part of the machine of exceptional strength will be realized when it is pointed out that, owing to the diameter of the Gnome engine being greater than the width of the fuselage, it is not possible to brace with wires that portion of the fuselage in which the engine is supported.

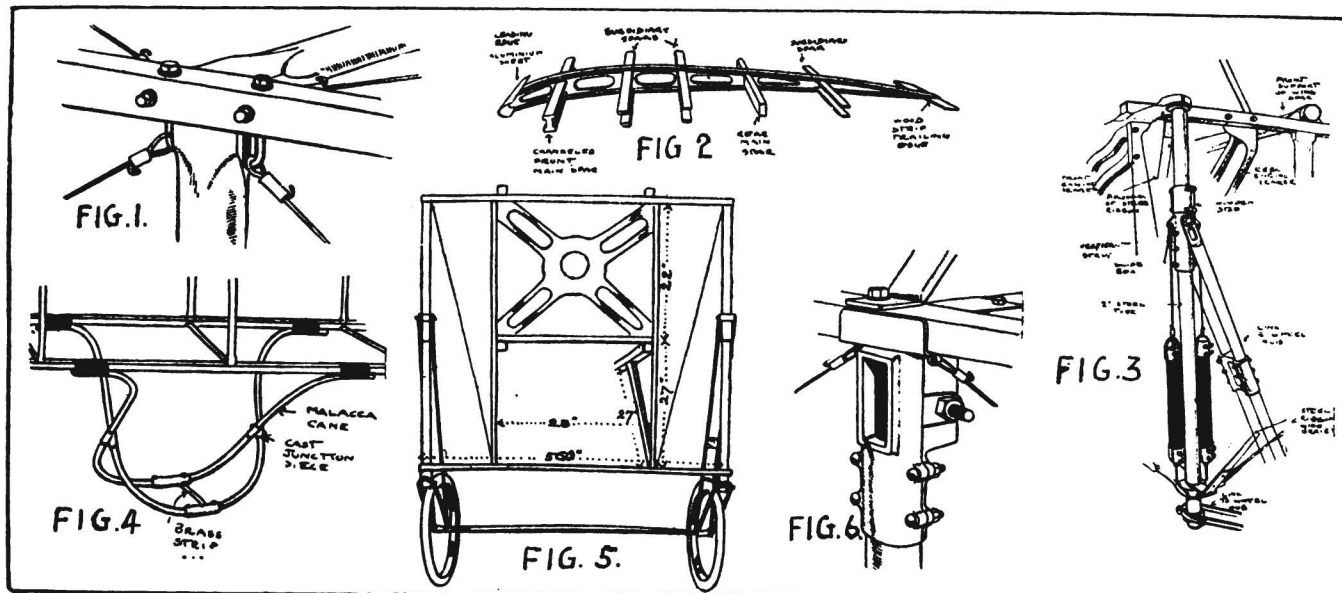
The steel columns forming the vertical slide rods for the landing wheels are 2 in. in diameter, and the compression links are also steel tubes $1\frac{1}{2}$ in. by $\frac{1}{2}$ in. oval section braced with cast aluminum cross pieces.

A view of the rear landing skid is given in Fig. 4. Formerly a wheel was used to support the tail, but this allowed the machine to run a considerable distance after landing and was discarded for the skids. The new method is certainly the better of the two, not only because it is lighter, but even more so, because the shock is thereby distributed over a larger portion of the fuselage.

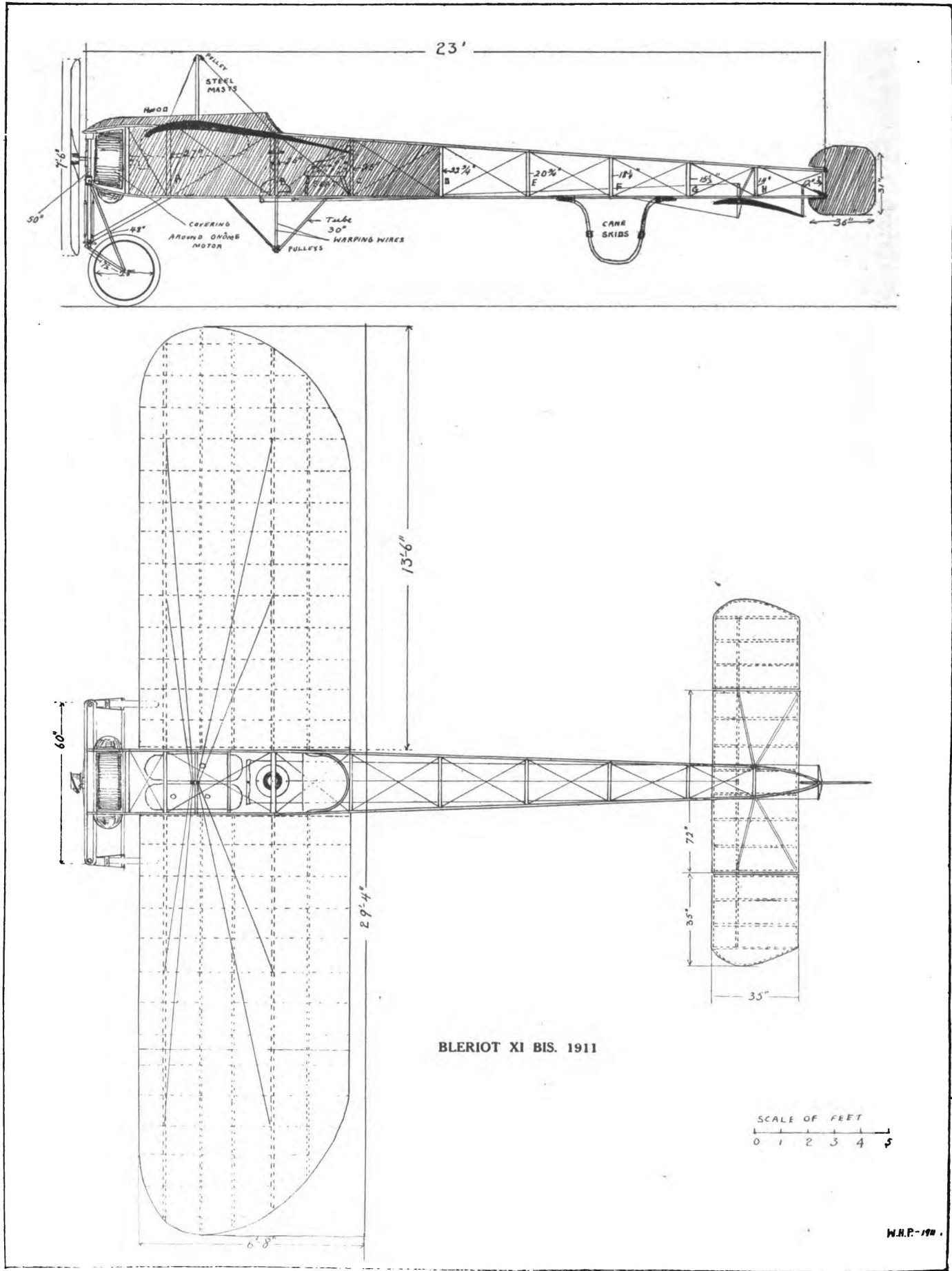
The tail is half fixed and half controllable, the full spread being 12 ft. 1 in. by 2 ft. 11 in., and the controllable ends have each a span of 35 in. These latter are fixed to a tube, set as nearly as possible to coincide with the normal center of pressure, which passes inside the framework of the fixed tail and is operated by a single central crank.

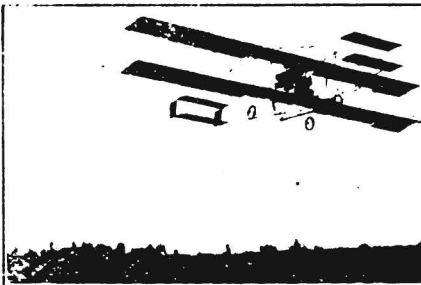
The rudder is 36 in. long by 33 in. deep, and is mounted as shown in Fig. 8.

We are indebted to London "Aero" for the detail drawings accompanying this article.



SCALE DRAWINGS OF THE NEW BLERIOT MONOPLANE
(PARIS-ROME TYPE)





CHAS. F. WALSH MAKING A FLIGHT AT PORTLAND, OREGON. THIS MACHINE IS FITTED WITH A HALL-SCOTT MOTOR.

CLUB NEWS

Aero Club of America

Realizing the dream of months to have a home of its own, the Aero Club of America on June 14 took possession of the handsome club house at No. 297 Madison avenue and threw open the doors for an old-fashioned house warming.

Everybody in aeronautics, whether as sportsman or professional, was present and inspected the beautiful rooms on the five floors of the newly refitted building. Not a few were present from cities of the West and South.

There was no formal programme of exercises, but a buffet luncheon was served, and all the members organized themselves into a committee to make the visitors feel at home. In the supper room a camera had been rigged up and photographs were taken of some of the best known aeronauts present. Among the fliers in attendance were Thomas Sopwith, J. A. D. McCurdy, Thomas Baldwin, C. B. Harmon, St. Croix Johnstone, Augustus Post and Leo Stevens.

The new home, five stories in height, constructed of Indiana limestone, faces Madison avenue and extends eastward along Forty-first street. A high iron fence of ornamental design protects the little border of lawn that runs around the house. The main entrance is broad in its welcome and opens directly into a reception hall of onyx walls that affords the first hint of the beauty and richness of the house.

Originally designed and built as a residence for a man of wealth, the Club has finishings and furnishings of a lavish kind. Onyx and marble, brass and bronze, carved wood and cut glass, silken tapestries, leather from Spain, parquet floors and panelled ceilings, grill work of iron and wood from the hands of master artists, stained glass windows, costly mantels and chandeliers form this miniature palace in which the Aero Club resides.

The Aeronautical Society

The annual election of officers, directors, and committees of the Aeronautical Society took place at their club room, 250 West 54th Street, New York, on June 8th, with the following results:

President—Willis McCormick.
Vice-President—Thomas A. Hill, Dr. John Henry McCracken, James M. Beck, Capt. W. I. Chambers, Roger B. Whitman.

Board of Directors—Willis McCormick, Lieut. F. W. Humphries, Sen. J. F. Duhamel, Col. E. A. Havers, Geo. F. Campbell Wood, Frances T. Sanford, Carlos deZafra, Thomas A. Hill, Hiram P. Maxim, James M. Beck, Capt. Thos. S. Baldwin, John H. McCracken, Lee S. Burridge, Hudson Maxim, Roger B. Whitman, Arnold Kruckman, W. Irving Twombly, William J. Hammer, Hugo C. Gibson, Louis R. Adams, C. Wesley Howell, Geo. S. Bradt, Wilbur R. Kimball, H. A. Wise Wood, Capt. Chambers.

Treasurer—Geo. S. Bradt.
General Secretary—Arnold Kruckman.
Recording Secretary—Raymond Beck.
Law Committee—Thomas A. Hill, Chairman; Orrell A. Parker, Herbert C. Smyth, James F. Duhamel, Francis X. Carmody, James M. Beck, William R. Page.

Membership Committee—Carlos deZafra, Chairman; William R. Kimball, Charles Wake, Fred A. Scheffer, J. R. Westerfield, Dunbar Adams, Lieut. F. E. Humphreys, Geo. S. Bradt, Ralph Unson.
House and Grounds Committee—William R. Kimball, Chairman; Dr. H. W. Walden, C. O. Hadley, William Blood, Wilson S. Howell, Jr., C. A. Luff, Henry J. Winter, R. G. Ecob, Lee S. Burridge.

Technical Board—Hugo C. Gibson, Chairman; William J. Hammer, Prof. A. Lawrence Rotch, Prof. Dwight W. Hering, Prof. Todd Davis, A. Leo Stevens, Earl Atkinson, W. L. Fairchild, Prof. John I. Montgomery, Greely S. Curtis, Capt. W. I. Chambers, Prof. Herschel C. Parker, J. Bernhard Walker, John F. O'Rourke, M. B. Sellers, W. Irving Twombly, Carlos deZafra, Ernest V. Lallier, Prof. Collins P. Bliss, Prof. D. L. Gallup, Prof.

William Hallock, Wilbur R. Kimball, Lewis R. Compton, Harry R. Burt, Earle Ovington.

Library and Publication Committee—Thomas A. Hill, Chairman; A. E. Horn, Librarian; Ernest L. Jones, Arnold Kruckman, Wilson S. Howell, Jr., C. Wesley Howell, Baron Ladis Las d'Orcy, H. A. Wise Wood, Raymond Beck, W. L. Fairchild.

Foreign Relations Committee—G. F. Campbell Wood; W. Irving Twombly, Carlos deZafra, Baron Ladis Las d'Orcy, Baron von Dewitz, William J. Hammer, Rudolf Wille.

Entertainment Committee—Lee S. Burridge, Chairman; Geo. S. Bradt, Roger Whitman, Carlos deZafra, Wilson S. Howell, Jr., Hugo C. Gibson, Baron von Dewitz.

Model Committee—Wilson S. Howell, Jr., Chairman; Percy Pierce, Carl H. DeLion, Louis R. Admas, Lawrence J. Lesh, Louis Ragot.

Auditing Committee—A. A. Whitman, Chairman; Dwight Tracy, Herbert Longendyke.

Aero Club of New York

By RICHARD R. SINCLAIR, SECRETARY.

Eleven of the twenty-one hangars at the Aerodrome, Garden City Estates, are now completed and occupied. A large force of men worked day and night to put the field in shape for the opening, which took place on June 10th and was a decided success in every way.

The Aero Club of New York, although affiliated with the National Council, is an independent organization whose officers are representatives of the four leading Aeronautical Associations of America with Timothy L. Woodruff as President.

The Club has been organized for the practical promotion of aviation. Its purpose is to provide and maintain an aerodrome superior to any heretofore established in this country for those who have acquired the art of aerial navigation, and also for those who seek the facilities of learning to fly.

The New Aerodrome is one of the best equipped in America. The hangars are of a uniform size and contain every feature necessary to the successful exploitations of the sport.

The flying field is situated just east of Nassau Boulevard, a thoroughfare stretching from Jericho Turnpike to Hempstead Turnpike, and within easy walking distance of the Nassau Boulevard station on the Hempstead Division of the Long Island Railroad and the new Merrilion Avenue Station on the main line of the Long Island Railroad.

The privileges of the GARDEN CITY ESTATES CLUB have been extended to members of the AERO CLUB OF NEW YORK. The aerodrome is twenty miles from the heart of the Borough of Manhattan, reached either by the Long Island Railroad from the Flatbush Avenue Station, Brooklyn, or the new Pennsylvania Station, Seventh Avenue and Thirty-third Street, or by automobile via Queensboro Bridge, Hoffman Boulevard, Hillside Avenue, Rocky Hill Road, Jericho Turnpike and Nassau Boulevard.

An adequate space has been fenced in on the flying field for the exclusive use of members and their invited guests, thus affording every comfort and convenience for witnessing the flying.

Two hundred parking spaces skirt the field on the West.

No admission will be charged at any time.

Aero Club of California

By VAN M. GRIFFITH.

The following standing committees have been appointed by the President, Geo. B. Harrison, of the Aero Club of California, for the ensuing twelve months:

Membership—Raymond I. Blakeslee, Los Angeles; E. Roger Stearns, Los Angeles; Ed. R. Maier, Los Angeles; Leon Escallier, Los Angeles; William Stevens, Los Angeles; Glenn L. Mortin, Santa Ana; Frank T. Seagriff, San Diego; E. H. Earle, Pomona; James R. Ricketts, Long Beach; Harvey H. Hinde, Riverside; Louis

Mortimer, Los Angeles; James R. Townsend, Los Angeles; E. J. Campbell, Pasadena.

House—Charles F. Walsh, M. C. Tunison, Mrs. H. La V. Twining, R. S. Stratton, Charles Forman.

Entertainment—L. P. Barrett, Earle Remington, C. H. Temple, L. K. Freeman, F. G. Calkins.

Technical and Contest—H. LaV. Twining, H. S. Dosh, W. S. Eaton, Charles Rillet, Buel H. Green.

Financial and Auditing—J. J. Slavin, W. H. Leonard, M. H. Gallagher, Chas. Skoglund.

Investigating—R. C. Hamlin, C. H. Day, W. B. Cannon, W. H. B. Kilner, Alfred Solano.

Member National Council of Aero Clubs of America—Earle Remington; alternate member, Ernest LaRue Jones.

New York Representative Committee—E. L. Jones, T. A. Hill, F. E. Moskovics.

Foreign Representatives—London, R. J. H. Hope; Paris, Louis Paulhan.

Aero Club of Illinois

Chicago just at the present time is the center of the aeronautical map of the United States, and Harold F. McCormick, Treasurer of the McCormick Harvester Co., and also son-in-law of John D. Rockefeller, is probably doing more for the development of aviation in this country than any other one man. Through the efforts of Mr. McCormick, both actively and financially, the greatest aviation meet of the year in the United States is being organized and will be held at Chicago from August 12th to the 20th, and the most remarkable feature of this meet is the fact that it will be held right in the front door yard of the Western Metropolis. The meet is to take place in Grant Park, which lies along the lake front right in the heart of the city. It is expected that the entire cost of the meet will be in the neighborhood of \$250,000, \$80,000 of which will be offered in prizes.

The admission fees will be small, ranging from 25 cents to \$2, with a considerable area set aside for free admissions. The profits which are derived from the meet will be given to the United Charities of Chicago. The schedule of events as so far arranged, barring details, are as follows:

EVENT NO. 1.

Totalization of duration (entire meet), seven prizes, aggregating \$8,000.

EVENT NO. 2.

(This is really eight events.) Daily totalization of duration. Prize, \$1,000 for each day divided into six graded parts.

EVENT NO. 3.

Speed contest for biplanes, 20 miles (15 laps) from a standing start. Prizes, \$1,200, divided into four graded parts. To be run in heats if more than four contestants.

EVENT NO. 4.

Speed contest for monoplanes, 20 miles from standing start. Prizes, \$1,200, divided into four graded parts.

EVENT NO. 5.

Handicap speed contest for all types of aeroplanes, 20 miles from standing start. Reserve two starters in the previous contests. Prizes, \$1,200, divided into four graded parts.

EVENT NO. 6.

Climbing contests for monoplanes, 500 meters altitude. Prizes, \$2,200, divided into four graded parts.

EVENT NO. 7.

Climbing contests for biplanes, 500 meters altitude. Prizes, \$2,200, divided into four graded parts.

EVENT NO. 8.

Climbing contests for all types, 1,000 meters altitude for shortest time off the ground. Prizes, \$3,500, divided into five graded parts.

EVENT NO. 9.

Alighting contests as to accuracy, aiming at a given point or line. Prizes, \$1,000, divided into four graded parts.

EVENT NO. 10.

Starting contest (to get off the ground quickest). Prizes, \$1,000, divided into four graded parts.

The Aero Club of Illinois, under whose auspices the Chicago meet will be held, is now budding forth as one of the most important Aero Clubs of America, and it might safely be said that it ranks second to none, except, perhaps, the Aero Club of America. Already the club has in the neighborhood of about five hundred members, and has just acquired through the generosity of Mr. Harold F. McCormick a new aviation field, which extends over an area of about one hundred and sixty acres of fine, level ground, which has been scraped and rolled, until it is almost as level as a billiard table.

Five different transportation lines from the center of the city run to the grounds and the five cent fare and twenty-three minutes of time on the Metropolitan Elevated Railway, will land one right at "Aeroville Station," which is the main entrance to the grounds.

A high board fence encloses the entire field. Hangars, grandstands, Machine and repair shops, and a clubhouse, are now being built.

This field will be run entirely by the Aero Club of Illinois, and will be open to all amateur flyers. Hangar space will be provided for all those who wish to try out their machines. Prizes will be given for amateur flights at weekly matinees.

Model contests for the small boys will number among the events. Spherical and dirigible bal-

loon races will have their places on the program. The grounds will probably be the most complete in America, and will cost over \$100,000.

The officers of the Aero Club of Illinois are as follows: President, James E. Plew; First Vice-President, Harold F. McCormick; Second Vice-President, T. Edward Wilder; Secretary, Grover Sexton; Treasurer, Chas. E. Bartley; Consulting Engineer, J. S. Stephens. Directors—David Beecroft, F. C. Donald, C. E. Gregory, Wm. F. Grower, Frank X. Mudd, Frank Wentworth.

Horace B. Wild, the famous spherical and dirigible balloon pilot, and who will shortly try for an aviation pilot's license, has rendered invaluable services to the Aero Club of Illinois during its period of organization.

LAKE MICHIGAN

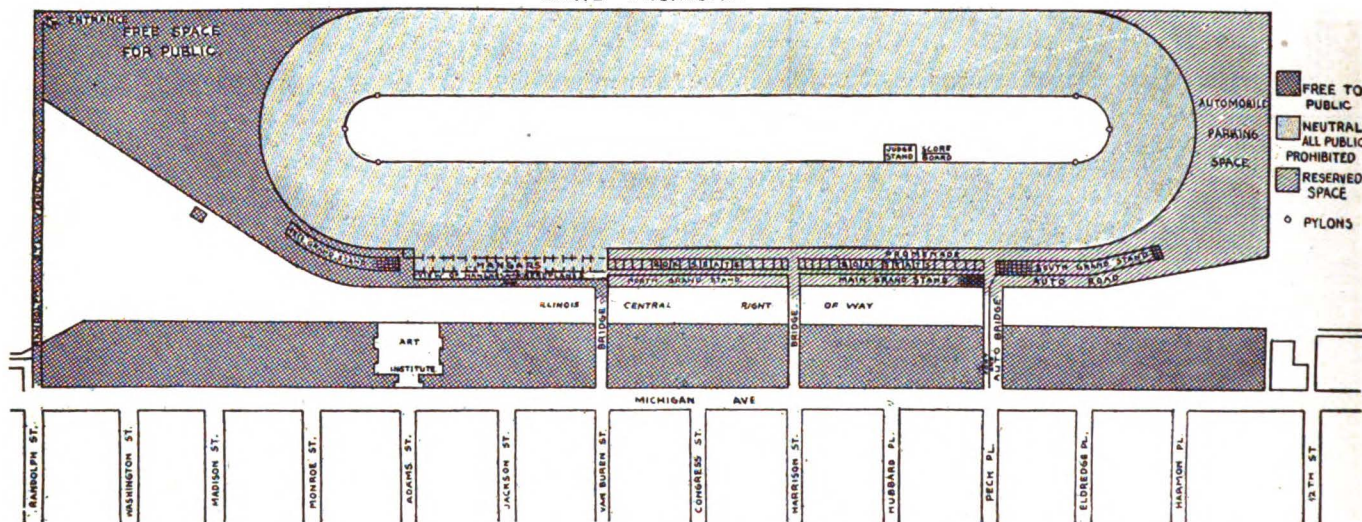


DIAGRAM SHOWING THE SPLENDID LOCATION OF THE GROUNDS TO BE USED FOR THE INTERNATIONAL AVIATION MEET AT CHICAGO. THESE GROUNDS, AS CAN BE SEEN, ARE RIGHT IN THE VERY HEART OF THE BUSINESS SECTION OF THE CITY.

GENERAL NEWS

New England News

By DENYS P. MYERS.

Following a hearing, the Committee on Public Health of the Massachusetts Legislature, to which Governor Foss' Message advising aeroplane regulation was referred as affecting public safety, reported a bill (No. 521) in the Senate on May 17. The bill differs considerably from the Connecticut bill, includes gliders within its purview and makes experimentation illegal without a license. The section devoted to liability for damages seems unnecessarily harsh, and, curiously enough, all moneys received under it would be devoted to road repair. The text reads:

AN ACT

Relative to the Registration of Flying Machines, Dirigible Balloons, Gliders and Other Apparatus intended to be propelled through the Air and to the Licensing of Operators thereof.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

Section 1. Every owner of a flying machine, dirigible balloon, glider or other apparatus intended to be propelled through the air shall, before operating the same, file annually in the office of the Massachusetts highway commission, on a blank furnished by said commission, a statement of his name, residence, post office address and such description of such apparatus sought to be registered by him and such other information as shall be required by said commission. Said commission, or its duly authorized agent, shall register such apparatus, assigning to it a distinguishing number or mark, which shall be displayed conspicuously thereon, and shall thereupon issue to the owner thereof a certificate of registration. Such certificate shall at all times be carried with such apparatus, and shall be subject to examination upon demand by any proper officer. The commission shall collect for each certificate of registration so issued a fee of ten dollars. The registration shall expire at midnight on December thirty-first of each year.

Section 2. No flying machine, dirigible balloon, glider or other apparatus intended to be propelled through the air shall be operated within this state by any person until his qualifications have been ascertained by the Massachusetts highway commission, after such examination as it shall deem necessary in each case, and a license has been issued to him, which shall specify, among other things, what kind or kinds of apparatus may be operated by the holder thereof. Said license shall be carried by such person at all times when operating. Said commission shall collect for each

license so issued a fee of two dollars. All expenses of examination incident to applications for such licenses shall be borne by the applicant. All licenses so issued shall expire one year from the date of issuance.

Section 3. The commission may for any cause it may deem sufficient suspend or, after an investigation or hearing, revoke any registration certificate or license issued by it under the provisions of this act and may order said registration certificate or license to be delivered to it; and neither the registration certificate or license shall thereafter be reissued except in the discretion of the commission.



FRED WISEMANN, THE WELL-KNOWN CALIFORNIAN AVIATOR, WHO HAS BEEN MAKING SOME REMARKABLE FLIGHTS IN THE WEST LATELY.

Section 4. The owner, lessee or charterer shall be liable for all damage resulting from the use or operation of such apparatus without proof of negligence or fault in its operation or management.

Section 5. Whoever violates any provision of this act shall for each offence be punished by a fine not exceeding one hundred dollars, or by imprisonment for a term not exceeding six months, or by both such fine and imprisonment.

Section 6. The provisions of section thirty of chapter five hundred and thirty-four of the acts of the year nineteen hundred and nine, as amended by chapter five hundred and twenty-five of the acts of the year nineteen hundred and ten, shall apply to the disposition of the fees and fines received under the provisions of this act.

State of New York, No. 1756. Int. 1436 In Senate.

May 23, 1911.

Introduced by Mr. DUHAMEL—read twice and ordered printed, and when printed to be committed to the Committee on Codes.

AN ACT

To amend the state boards and commissions law, in relation to establishing an aviation license board.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Chapter fifty-six of the laws of nineteen hundred and nine, entitled "An act in relation to state boards and commissions, constituting chapter fifty-four of the consolidated laws," is hereby amended by inserting a new article to be article four-a and to read as follows:

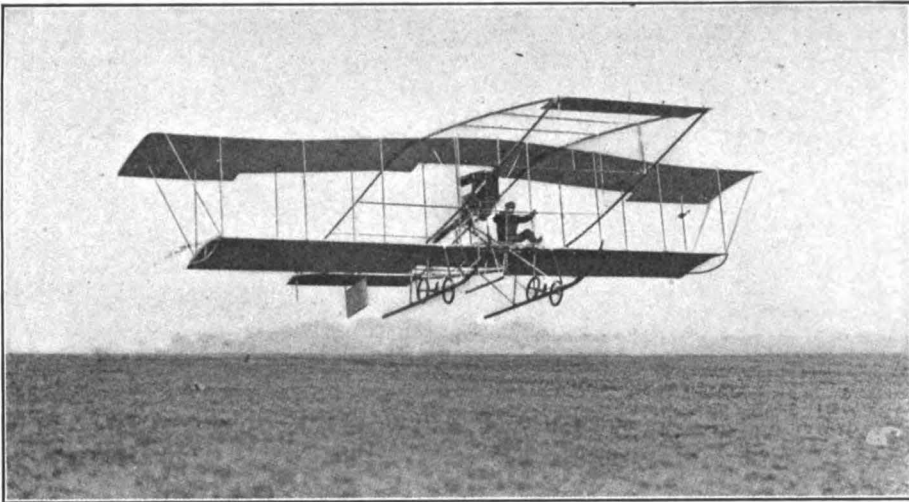
EXPLANATION.—Matter in *italics* is new; matter in brackets [] is old law to be omitted.

ARTICLE 4-A.

AVIATION LICENSE BOARD.

- Section 44. Aviation license board.
45. Powers and duties of board.
46. Examinations; licenses; fees.
47. Officers and employees.
48. Offices; seal.
49. Reports.
49-a. Violations punishable.

Sec. 44. Aviation license board. The governor shall appoint a commission of ten to be selected from the membership of the various aeronautical clubs, societies and scientific bodies identified with the science and sport of aeronautics, to be known



THE HADLEY AND BLOOD BIPLANE, REMARKABLE FOR ITS GREAT SIZE, MAKING A SUCCESSFUL FLIGHT AT MINEOLA. THIS MACHINE IS FITTED WITH A ROBERTS MOTOR.

as the aviation license board. The members shall be known as aviation commissioners and shall serve without compensation. The term shall be during the term of the governor appointing such commissioners. So far as practicable the board shall include a member from each of the said organizations. Any vacancy occurring by death, resignation or otherwise shall be filled by the governor within ten days after notice of such vacancy, and upon the governor failing to fill said vacancy as aforesaid, the said board shall elect a commissioner by a majority vote of the remaining members. The governor may remove any commissioner for cause, and the vacancy caused shall be filled as aforesaid.

Sec. 45. Powers and duties of board. It shall be the duty of said board to protect life and property and to safeguard public interest with respect to aeronautical devices; to conduct regular physical and mental examinations of those intending to operate aeronautical devices in order to determine the qualifications of applicants with regard to their physical condition or ability to safely engage in work of this character and for the purpose of determining the knowledge possessed of such apparatus to insure the proper and safe handling of the same; to inspect all aeronautical devices used or intended to be used in public flight for the purpose of determining the safety of such apparatus and to ascertain the manner in which public meets, events, contests or other aeronautical exhibitions or public demonstrations are held or to be held for the purpose of insuring proper safeguards to the public; to investigate all safety appliances and the manner in which public gatherings are to be conducted, and said board shall use every means within its power to protect persons attending same and properly shield them from all dangerous positions with respect to aeronautical devices, either while the same are in flight or on the ground.

Sec. 46. Examinations; license, fees. It shall be the duty of said board to hold examinations at regular stated times throughout the state, notice of the place and time of which shall be advertised in the daily newspapers of the locality in which such examinations are to be held at least sixty days before the date thereof. Each applicant for examination shall pay an examination fee of five dollars. Such examinations shall be held for the

purpose of ascertaining the qualifications of all applicants, and if an applicant is found duly qualified, the said board shall issue to him a license for which there shall be a fee of ten dollars to be paid to the secretary of the board. All apparatus intended to be used at meetings or exhibitions to which the public are admitted shall be submitted for examination and inspection to said board, and if found to be safe and proper, a license shall be issued therefor upon the payment of a fee of twenty-five dollars. All persons intending to conduct schools of instruction for the operation of aeronautical apparatus shall obtain a license from said board and pay therefor a fee of ten dollars. All persons intending to hold public meets or exhibitions shall first obtain a license from said board and pay therefor a fee of one hundred dollars. Special licenses may be issued by said board for special events as across country or over city flights for which a special license fee of five dollars shall be paid in each case. Said licenses are to be in form as prescribed by said board and may be limited to the operation of a dirigible or an aeroplane.

Sec. 47. Officers and employees. Said board shall elect by a majority vote from its own members, a president, a secretary and a treasurer of said board who shall perform the usual duties devolving upon such officers. Said board may also employ such clerks, inspectors and employees as it may deem necessary for the proper carrying out of the provisions of this article and said employees shall receive salaries to be fixed by said board.

Sec. 48. Offices; seal. The main office of the board shall be in the city of Albany in connection with the motor vehicle bureau of the office of the secretary of state, but the board may establish branch offices in any of the cities or civil divisions of the state for the purpose of facilitating the work of the department. The board shall have an official seal and shall cause the same to be affixed to every license issued by the board.

Sec. 49. Reports. Said aviation license board shall make annual reports to the governor and shall pay over to the state treasurer one-half of all funds received by it during the fiscal year, retaining the other half for the purpose of defraying

running expenses and necessary incidentals of said board.

Sec. 49-a. Violations punishable. Any violation of this article shall be a misdemeanor and shall be punished as follows: For the first offense, by a fine of one hundred dollars; second offense, by a fine of five hundred dollars; third offense, by a fine of not less than one thousand dollars or imprisonment for not less than one year, or both.

Sec. 2. This act shall take effect immediately. Senate, No. 1756.

Intercollegiate Glider Meet

The first intercollegiate glider meet held under the auspices of the Harvard Aeronautical Society on its field at Squantum, May 29 and 30, contained two classes of entrants: one of mechanically and the other of body controlled gliders. In the former event Tufts with 13 points was first, and Cornell with 11 points was second. In the later event Massachusetts Institute of Technology with 13 points and Volkman with 11 points were first and second respectively.

The Harvard glider on account of incorrect mounting on its skids was unable to make a flight, while the contests in the different events were being conducted, W. Starling Burgess and Charles K. Hamilton made a number of successful flights in Burgess-Wright biplanes.

A feature of the second day was the aviation exhibition given by Harry N. Atwood of Lynn, who made 16 flights during the afternoon, covering about 120 miles all told, and carried a passenger on every flight but one. His control of the Burgess-Wright machine, which he had never seen before, was wonderful. He had never operated an aeroplane alone until eighteen days before.

There were three events: Duration, distance and accuracy in landing. In each event a silver cup was offered to the aviator winning first place and a medal for second place. The entries included Massachusetts Institute of Technology, Cornell, Tufts, University of Pennsylvania, Swarthmore, Waltham Aeronautical Society, Volkman and Harvard. The club winning the largest number of points won the meet and the large silver loving cup offered by the "Intercollegiate Magazine."

The summary follows:

1. Mechanically controlled: (in the computation of which were considered efficiency, based upon the distance, duration, total weight, and supporting surface, counting first 5 points; second 3 point; third 1 point; the getaway, control in flight, and landing, each counting, first 3 points; second 2 points; third 1 point): First—Tufts, 13 points; E. P. Bugbee. Second—Cornell, 11 point; C. H. Wetzel.

2. Body controlled: First—M. I. T., 13 points; Dalrymple. Second—Volkman, 11 points; Lombard. Third—Swarthmore, H. Blumhardt.

3. General control in flight—Won by Cornell (mechanically controlled glider), C. H. Wetzel.

4. Greatest distance in single flight—Won by M. I. T. (body controlled glider), 653 feet, 23 seconds, Dalrymple.

The results are subject to the sanction of the contest committee.

There are nine aeroplanes now in course of construction at the Burgess Company and Curtiss plant at Marblehead, Mass. One for the government has been completed.

J. Albert Brackett, special justice of the West Roxbury Police Court, Boston, and attorney for the Association of Theatre Managers of Boston, has bought a Bleriot monoplane. It is the second of that make owned in Massachusetts, Burgess Company and Curtiss of Marblehead having the other.

Adjutant-General Pearson has completed the general plans for the maneuvers which will be held during the week of July 23-30. Boston will be the point of attack. It is probable that the maneuvers will be conducted for the working out of problems in grand tactics as well as instructing officers and men. There will be upwards of 5,000 members of the militia in action at the same time.

At the Harvard aviation field, June 3, Harry N. Atwood, in a Burgess-Wright biplane, made fourteen flights, under excellent weather conditions. He carried up four passengers and made a trip accompanied by Mrs. Charles K. Hamilton, the wife of the aviator. The other passengers carried by Mr. Atwood included Miss Wainwright of Milton, Sven Hjertberg and two pupils of the Burgess flying school. The longest flight made was one of eighteen miles. This distance was covered in about twenty minutes, but the average flights took about ten minutes each. The biplane is fitted with hydroplanes.

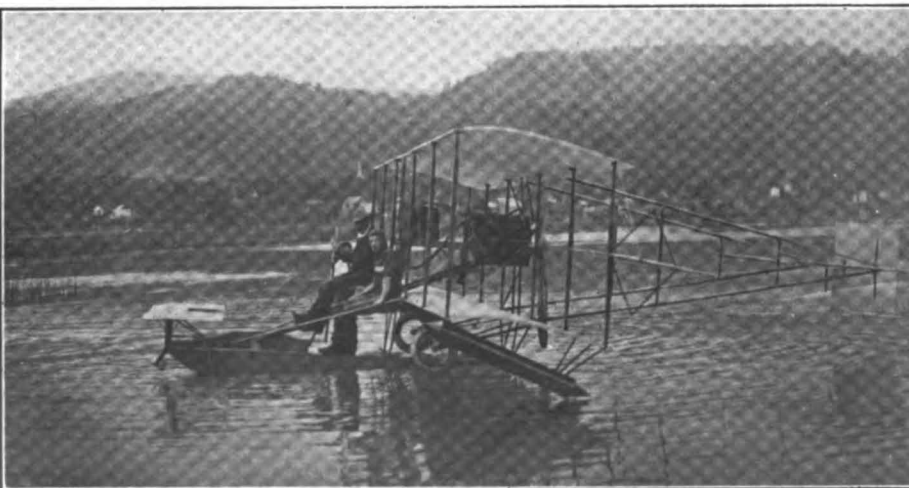
"Women should try aviation. I believe that they can make more money at it than men; all it needs is a cool head, and they have that. Flying is the most wonderful sensation in the world, it is my greatest interest in life. I could not bear to settle down to hum-drum existence, without the excitement and thrill of it."

This is what Mrs. James V. Martin, the first woman aviator to come to Boston, thinks of her calling.

Connecticut News

By S. H. PATTERSON.

A. Holland Forbes' Aviation Bill which was presented to the State Legislature in April readily passed both Houses and was signed by Gov.



Glenn H. Curtiss and Lieut. Ellyson, U. S. N., just after alighting upon the lake at Hammondsport, N. Y., after making a fine flight in his latest hydro-aeroplane. This machine is built to run along the ground, alight on the water or fly in the air.

ernor Baldwin on June 8th, on which day it became operative. This bill is substantially as presented by Mr. Forbes and was published in April Aircraft and is the most complete and comprehensive act to regulate aviation without interference adopted by, or presented to any State in the Union. By the provisions of this act no aviator will now be allowed to make any cross country flights in Connecticut, unless he has obtained from the Secretary of State an operator's license and registered his machine on which he must display registration numbers not less than 3 feet in height, which must be visible while machine is in flight to those beneath; unless he be a non-resident of Connecticut, in which case he may operate his machine in this State not to exceed 10 days in any one year, without being obliged to comply with these laws, provided he is a resident of a State which requires registration of air ships and the licensing of operators, and with which he has complied. Failure to comply with these provisions subjects one to a fine of not more than \$100.00, or imprisonment for not more than six months, or both.

The Secretary of State proposes to confer with the Governors of The Aero Club of Connecticut in the matter of issuing licenses for aviators in this State and the Governors of the Club are to determine whether applicants for licenses are, or are not, proper persons to receive them, which will be ascertained by their witnessing flights by the applicants and seeing that all tests necessary for obtaining pilot licenses are complied with.

These tests will be made at the Charter Oak Park in Hartford, and at Lake's Aerodrome in Bridgeport.

The Aero Club of Connecticut is making arrangements whereby every member will be able to make a flight as passenger in an aeroplane this Summer, for which they will be charged according to the duration of the flight.

The Yale Aero Club held a meet on May 19th and 20th in which McCurdy and Beachey made some clever flights. In one flight Beachey attempted to drop baseballs on to the field for Catcher Carhart of the Yale Varsity team to catch, but they went wide and the attempt was given up.

A meet was held at Charter Oak Park at Hartford, on May 29th and 30th, in which the Wright Flyers, Brindley and Turpin, made some excellent flights before a large attendance.

Howard Wilson, of Bridgeport, who has built two successful biplanes, has accepted a position with Capt. Baldwin as head mechanic.

California News

By ERNEST OHRT.

A. V. Hartle, an Ohioan, age 26, who was ambitious to become an aviator, fell to his death at Dominguez Field near Los Angeles, on May 17. He gave a contract two months ago to Harry A. Dosh for a Curtiss type biplane.

When forty feet in the air one of his ailerons flew off. Hartle started to descend in the middle of the field but rose again, appearing to have complete control of his craft.

To observers it looked as if he intended to land, but he again rose to an altitude of forty feet, when his machine was struck by a gust of wind and he was unable to right it and crashed to earth with the engine on top of him.

Eugene Ely made two flights at Eureka on May 28th and on his second flight he circled above the bay and city.

Clarence Walker made two short flights at the Fourth Avenue Heights near Oakland on May 21st. These flights were of short duration on account of the flying field being small with a hill in the foreground and a valley on each side. Didier Masson—Paulhan's old mechanic, who next tried the Curtiss biplane, made a very steep ascent, causing him almost to slide backward, but he made a safe landing after a short flight. The entire outfit will leave in the near future for the South Sea Islands.

G. Glizman, a young man of San Francisco, is constructing an original Farman type biplane which he hopes to try out soon. He will install a five-cylinder rotary engine of his own design in it. Glizman has made numerous glider flights.

The Ohrt brothers' glider No. 2 has lately made many flights on the San Francisco beach. The flights were all towed and the highest altitude was 175 feet by W. Hanley, and the longest 31.2 minutes by Ernest Ohrt; in one instance both of the former glidists went up. The Ohrt brothers and Hanley will soon be trying for the world's record in height for towed flight.

Marshall Giselman, of San Francisco, is building his second biplane and also an engine of his own design.

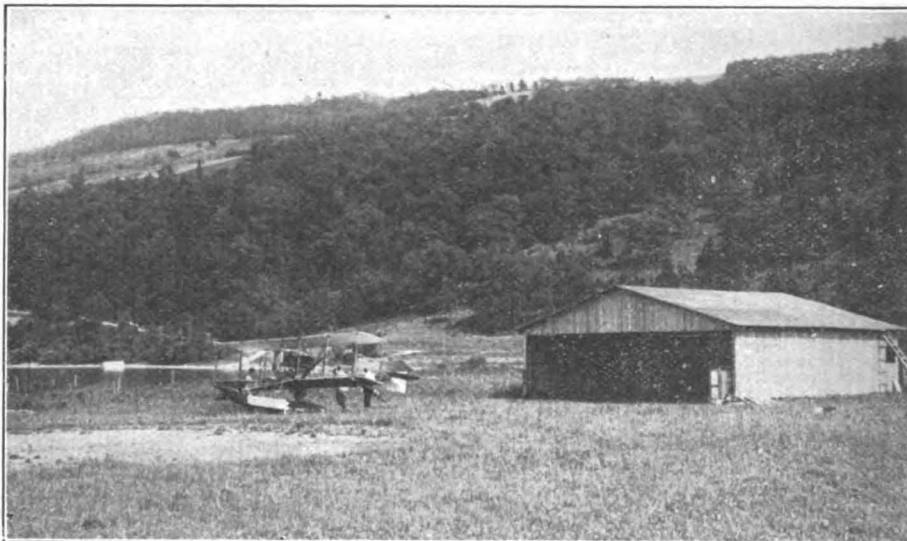
Mineola and Belmont Park News

On May 21st, some splendid flying was accomplished at Belmont Park by Earle Ovington, who gave an exhibition of cross-country and fancy flying.

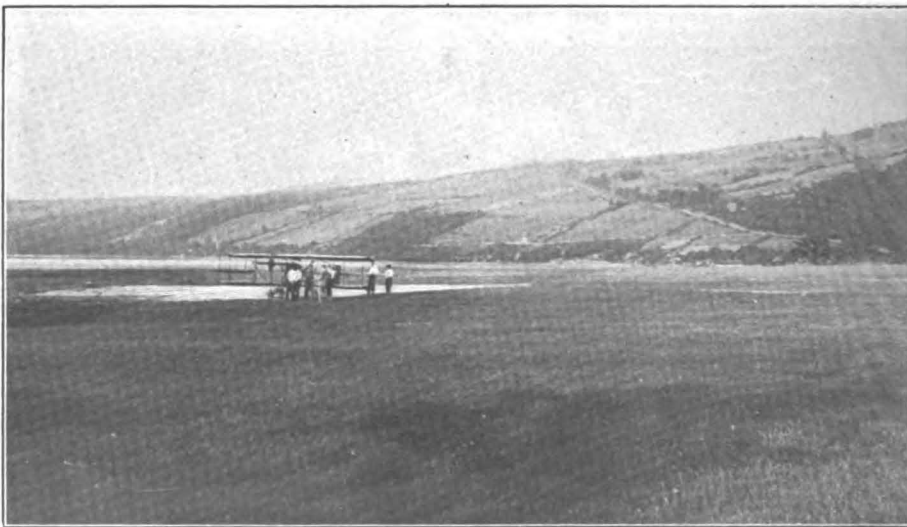
Joseph Richter gave Belmont Park a little surprise by jumping into his Schneider biplane, equipped with Roberts motor, with Joseph Costello as passenger and flying out over West Hempstead and back, a round trip of twenty-eight miles.



FRED WISEMANN MAKING A FLIGHT AT CUCHONUSH, WASHINGTON, IN A WISEMANN BIPLANE, FITTED WITH A HALL-SCOTT MOTOR.



THE CURTISS HANGAR AT HAMMONDSPORT, N. Y., NEAR THE LAKE, IN WHICH IS HOUSED HIS LATEST HYDROAEROPLANE. THE PICTURE SHOWS THE MACHINE BEING TAKEN FROM THE HANGAR TO THE LAKE FOR EXPERIMENTAL WORK.



VIEW SHOWING A PORTION OF THE CURTISS FLYING GROUND AT HAMMONDSPORT, N. Y., WHERE STUDENTS ARE TRAINED IN THE ART OF AVIATION.

Then flying alone he circled over Floral Park and Garden City, and landed at the Mineola aviation field, afterward returning to Belmont Park.

Robert Bessier, mechanic for St. Croix Johnstone, had a narrow escape on May 28th at the Mineola Aviation field.

Mr. Johnstone had brought out his Bleriot, which is equipped with a 50 H. P. Gnome motor. By some mistake the motor had not been throttled down, so that when Bessier turned the propeller over it began to revolve at high speed. Mr. Bessier was struck on the right side by the propeller but did not sustain any serious injury.

A. Sallinger, the Johnson brothers of California, and Joseph Costello, made short flights at Belmont Park.

Joseph Richter in a Roberts-Shneider biplane, fitted with Requa-Gibson propeller, made a number of fine exhibition flights at heights ranging from 200 to 900 feet on May 30th.

At the termination of his exhibition he again started and climbed in circles until he was about 900 feet high and then made a straight line for Belmont Park.

When he arrived at Belmont Park he was flying at a height of about 1,800 feet. When he was directly over the field he cut off his motor and made a long vol plane to the ground, making as fine a landing as was ever made on the field.

The Roberts motor worked perfectly at all times and was highly praised by every one who saw the performance.

On June 1st, two aviators came to grief while flying at Mineola. Miss Harriet Quimby, the young woman aviator who has been practising on the Moisant machine at the Moisant school, was out before 5 o'clock in the morning and made a couple of circuits of the field at a low altitude. S. S. Jarvan next took control of the machine and was doing nicely until he tried a turn at the far end of the field, but did not warp his wings properly, with the result that the machine tipped over sideways and dived head first to the ground a distance of 30 feet.

Joseph Stevenson was in the midst of a short flight when he attempted to make a landing in front of the grandstand, but something went wrong with the machine and instead of gliding to the ground, it suddenly rose in the air, went over the high fence surrounding the grounds and landed across the road against a hangar. Stevenson managed to retain his seat but his machine was badly damaged.

On June 4th, St. Croix Johnstone made an excellent flight at Mineola, during the course of which he rose to a height of 1,500 feet, where he shut off his motor and glided to within 100 feet of the ground when he restarted his motor and set off on a cross-country circuit.

At Belmont Park, Wilbur R. Kimball has been testing his new tailless biplane, which is fitted with two Requa-Gibson propellers running in opposite directions by a new and novel transmission which does away with the crossing of one of the chains.

Army and Navy Notes

On May 24th the government's balloon school at Fort Omaha was opened and sixteen students were instructed in the filling and handling of balloons by Capt. C. de Chandler.

In the afternoon Capt. Chandler, accompanied by four students, went aloft in the big army balloon and landed at Woodbine, Iowa, shortly after dark. The balloon carried a wireless outfit and messages were sent to and from the balloon.

The foundation of a United States aerial navy was laid on May 25th when Assistant Secretary Winthrop signed contracts, aggregating \$13,000, for the delivery at the Naval Academy by July 1st, of three aeroplanes.

Two of the machines will be of the Curtiss type, one with eight cylinders and the other with four, and the other aeroplane will be furnished by the Wrights. These must be capable of rising from and alighting upon the water and of carrying at least one passenger.

Immediately upon delivery of the machines a naval school of instruction for aviators will be established at Annapolis.

Lieut. Thomas D. Milling, Fifteenth Calvary, U. S. A., has been sent to Washington to drill other army officers in the art of aerial navigation. Lieut. Milling handles a Wright biplane which he learnt to fly after two hours and ten minutes practice with an instructor in the air at the Wright's aviation school at Dayton.

The Wright Camp

Continuous flying is taking place at the Wright School in Dayton where two or three machines are frequently seen in the air. Average flights per day last month were over fifteen. The following pupils have completed their training: L. W. Bonney, Wellington, Ohio; Oscar A. Brindley, Columbus, Ohio; and Howard W. Gill, Baltimore, (Wright aviators). Mr. Gill made his debut in the exhibition field at Saginaw, Mich., on June 29-30, where his old time skill as an automobile racer stood him in good stead and furnished pleasing entertainment to a large crowd.

Mr. Brindley made his debut at Hartford May 29-31. Lieut. Henry Arnold and Thos. De Witt Milling have completed their training of aviation work in the Signal Corps of the Army. After two hours and fifteen minutes in the air, Lieut. Milling made a number of short flights and then went up 1,500 feet and glided down.

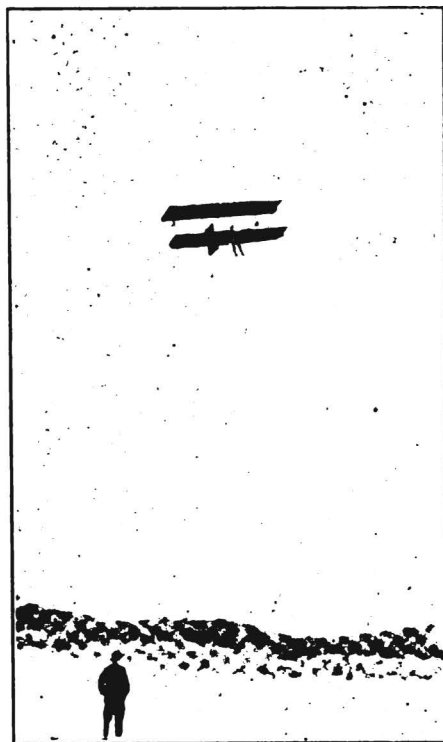
Mr. Jack C. Henning, St. Louis, Mo., private

owner, Mr. Atwood, Boston, Mass.; and C. P. Rodgers, N. Y., also Mr. Harold Brown, Boston, Mass., have completed their training on Wright biplanes.

Mr. Coffyn flew almost continuously in Government work at San Antonio on the Wright machine and the excellency of the machine for reconnoitering and wireless purposes was a great surprise to General Carter and other members of the staff. The Navy Department takes delivery of a Wright machine on the first of July and the War Department have several orders for Wright biplanes on hand.

SUMMARY.

Showing the rapidity with which Lieut. Thomas D. Milling learnt to fly at the Wright Camp at Dayton. He took his first ride on May 2nd. Be-



THE ORT BROS. GLIDER MAKING A HIGH TOWED FLIGHT.

gan training May 6th and finished his training on May 12th. J. C. Turpin acted as instructor.

Operator.	Lesson.	Time.	Remarks.
Welsh	1	14 Mins.	Rode as passenger.
Turpin	2	9 "	Principally rode as passenger.
"	3	8 "	Had charge of warping lever for awhile.
"	4	12 "	
"	5	11 "	
"	6	14 "	Had charge of warping lever.
"	7	5 "	Had machine when in air.
"	8	11 "	
"	9	8 "	
"	10	8 "	Throttled engine on him to teach gliding.
"	11	8 "	
"	12	9 "	Landed without assistance.
"	13	3 "	Bumped shed door, broke front skid.
"	14	3 "	Landed without assistance.
"	15	7 "	Landed without assistance.
"	16	5 "	Landed without assistance.

135 Mins. or 2 hrs. 15 mins.

The Curtiss Aviators

The return of warm weather has brought with it renewed interest in aviation exhibitions and contests. Jerome Fanciulli, general manager of the Curtiss Exhibition Co., who has just returned to New York after an inspection trip during which he traveled 9,000 miles, and visited over a dozen cities where Curtiss aviators were scheduled to fly, states that the past month has been the best in the history of aviation exhibitions in this country.

"We have kept eight aviators busy," said Mr. Fanciulli, "and have turned down business aggregating over \$15,000.00 which we were unable to take care of on account of conflicting dates and shortage of aviators, and have even had to call into service Mr. Curtiss, who is endeavoring to devote his entire attention to the manufacturing end of the business."

"The hydro-aeroplane is attracting the attention of summer resorts, and even the Yacht Clubs and Motor Boat organizations, as well as big civic celebrations, such as the Fall River Cotton Centennial, the Astoria Oregon Centennial and the Seattle Potlach Celebration. We find that the hydro-aeroplane can be used where no grounds are obtainable for the regular machine."

Messrs. McCurdy and Beachy provided the flights and contests at the aviation meet which was held by the Wilkes-Barre, Pa., Aero Club, from May 29th to June 3rd. Many sensational flights were made by both participants. Mr. Beachy is now regarded as the most sensational biplane exhibitor in the country; many of his antics are original and display great skill.

Another big meet conducted by the Curtiss Co. was that at Wichita, Kansas, in which Messrs. Ely, Ward, Witmer and St. Henry participated. So much enthusiasm was created as a result of this meet, that Messrs. Ward and Robinson have been busy daily filling contracts for the Curtiss Co. in that section of the country. Among the places at which these aviators provided the flights were: Joplin, Mo., Little Rock, Ark., Lincoln, Neb., Topeka, Ottawa and Salina, Kansas.

Fort Wayne, Ind., another Curtiss aviation meet, was participated in by Messrs. Willard and Witmer. Mr. Willard flying there by special arrangement with the Curtiss Exhibition Co.

An unusual field for aviation exhibitions in which the Curtiss Exhibition Co. seem to be particularly active, is the conducting of aviation meets by newspapers. The most recent success in this line was the big meet just concluded at Evansville, Ind., at which Messrs. Witmer and Beachy flew for the Evansville Courier.

Another meet under the auspices of a newspaper was that at Lafayette, Ind., in which the Purdue University also co-operated. The flying being done by Messrs. Beachy and Witmer, at the Purdue University Grounds. Over 8,000 persons witnessed the flights.

A big crowd saw Mr. McCurdy fly at Springfield, Mass., on June 8th and 9th.

R. C. St. Henry, one of the most recent Curtiss aviators, has been making numerous flights in Western Canada and in North Dakota. He flew at Regina, Fargo, Jamestown and Carrington.

The American Propeller Company of Washington, D. C., has been doing a splendid business of late. They are the makers of the Paragon propeller which has been so successfully used on many machines. Among the well known aviators and builders who use these propellers are: Newell Aerial Navigation Company, Seattle, Washington; Joseph A. Blondin, Los Angeles, Cal.; D. L. Thompson, Tacoma, Washington; R. V. Jones, Seattle, Washington; A. L. Leatart, Los Angeles, Cal.; American Aeroplane Co., Wilmington, N. C.; M. C. Hoyle, Warre, Mass.; Matthewson Aeroplane Co., Denver, Colo.; Overland Washington Motor Co., Washington, D. C.; Romaine de Bersaques, Ft. Myer, Va.; Sydney V. James, Chicago, Illinois; W. P. Gary, Paterson, N. J.; Dan Lewis, Sonora, Mexico; C. V. Cessna, Enid, Oklahoma; The Ray Harroun Co., Indianapolis, Ind.; F. Rodriguez, New York City; A. M. Williams, Douglas, Ariz.; H. W. Jacobs, Topeka, Kans.; George C. Wagner, San Francisco, Cal.; The Gallaudet Engineering Co., Norwich, Conn.; W. W. Southard, Baltimore, Md.; Brown Aeroplane Co., Baltimore, Md.

McCurdy-Willard Aeroplane Co.

J. A. D. McCurdy, Charles F. Willard and R. R. Young have completed arrangements and organized a company which is known as the McCurdy-Willard Aeroplane Company. The company's offices are located in the Goodrich Building, 1780 Broadway, New York. They are building a biplane type of machine known as the McCurdy-Willard. The machines are all equipped with Gnome motors and are built in three sizes, viz: special passenger carrying machine; regular standard, carrying one man, and a small high-powered racing type. The company will carry on a regular exhibition business, entering all the big meets, also manufacture these machines for the trade. Mr. McCurdy and Mr. Willard are among the oldest men in the aviation business. Mr. McCurdy was associated with Dr. Alexander Graham Bell, experimenting with heavier than air machines four years ago. Mr. Willard was the first man to give a public exhibition with a heavier than air machine in this country.

The Queen Aeroplane Co.

The Queen Aeroplane Company of New York, must now be recognized as one of the big aeronautical manufacturing concerns of the United States. It has a well-equipped plant at Fort George and a large corps of experts are busily engaged these days turning out the Queen monoplane. At this writing there are nine monoplanes at the factory approaching completion, some of them being constructed according to orders and others being built for the company's exhibition de-

partment. Arthur Stone is the company's licensed pilot and he has been making many flights at Belmont Park recently. The company has decided to send two machines to the Chicago meet in August.

The Farman Company of America

Mr. Alfred W. Lawson, president of the Farman Company of America, spent two weeks touring the West during the month of June in search of a suitable site for a factory and flying school grounds. He remained several days in the cities of Detroit, Chicago, St. Louis and Kansas City, and reports that any one of those cities would make a good place for the Farman Company to locate in.

It is expected that within the next thirty days a decision will be reached as to just what locality will become the permanent home of the Farman Company.

Secretary Baron d'Orcey, of the Farman Company of America, reports that he is in receipt of a great many applications from both men and women in all parts of the country who desire to learn to fly the Farman machine.

Mr. L. Blouet, the sales manager of the Farman Company of America, has become a member of the Aero Club of America.

The Baby Engine

We take pleasure in being able to announce to the followers of aeronautics, the advent of the "Baby Engine," manufactured by the Eckert Bros., at Stamford, Conn.

This diminutive motor, weighing according to the claims of its makers 3½ lbs., constructed along standard lines, automatic in its operation, and developing a full ½ horse-power at its working speed of 1,300 r. p. m., with a 24 inch diameter, 18 inch pitch propeller, or 2,300 r. p. m. with an 18 inch diameter 13 inch pitch propeller, delivers between 7 and 8 lbs. thrust.

Among the special features which it embodies, are an automatic and infallible lubricating system, which distributes to all parts of the engine a predetermined quantity of oil. It is further equipped with a very highly efficient aluminum spray carburetor, so small that it can be placed on a 25c. piece (patent applied for), and which, together with a spun aluminum gasoline tank holding gasoline sufficient for a twenty-minute run, weighs slightly over three ounces. The ignition is of the high tension type and includes beside a diminutive spark plug, a commutator of special design, which permits of perfect spark control. The equipment includes a highly finished 18 inch diameter 13 inch pitch aluminum propeller.

The sphere of usefulness for which this little engine is designed, is one which must suggest itself to every reader of Aircraft. There has long been

a demand on the part of experimenters, model builders, and those engaged in the fascinating new science of the air, for a positive power coupled with maximum strength and minimum weight. The "Baby Engine" is designed for installation in flying models from 6 to 8 feet spread of both biplane and monoplane construction.

The Sanford Aerial Construction Co. is yet another concern to branch from the field of automobiles to further the art of aviation.

Mr. Sanford, the president of the F. T. Sanford Automobile Co. of New York, is also the leading light in the new construction company. For the past six months this concern has been turning out propellers which have shown up very favorably in comparative tests, for efficiency and also for construction and finish. They have now taken a lease on an additional building to be devoted entirely to building complete aeroplanes of all types. With their well established reputation for thoroughness and attention to detail, we have no hesitation in predicting a successful and prosperous future for the Sanford Aerial Construction Company.

General Notes

Both Fred E. Wisemann and Charles F. Walsh have been doing some excellent flying during the past month in machines equipped with Hall-Scott motors. Since winning the novice events at the San Francisco aviation meet held at Selfridge Field in December, 1910, Mr. Wisemann has practically rebuilt the plane throughout, changing the design and construction and thereby reducing the weight from 1,100 pounds to 750 pounds.

The machine is now able to fly with the throttle of the 80 H. P. motor half open. Mr. Wisemann has entered the ranks of professional aviators and has been giving successful exhibitions along the coast and is at present covering the Northern territory.

Mr. Chas. F. Walsh, who only recently installed a Hall-Scott 60 H. P. power plant in his modified Curtiss type has been giving a good account of himself and on almost his first attempt with this motor he rose to a height of 700 feet at Portland, Ore.

While Louisville may not be the actual center of the aeroplane manufacturing industry in the United States, it is by no means on the extreme outer rim, for already the enterprising firm of R. O. Kubel, Jr. & Co., scarcely three years old, has had to enlarge its quarters to accommodate the rapidly increasing business that is coming its way. This firm, which has been manufacturing aeroplanes and aeronautical supplies since its birth, has just leased another three story building two doors north of its present location which will be used exclusively for the assembling of aeroplanes.

Some good flying took place at the Columbus aviation meet held from May 29th to June 5th. The aviators were: Capt. Thos. Baldwin with his Hall-Scott engine "Red Devil"; Earle T. Ovington, with a 70 H. P. Gnome Bleriot; Thomas Sopwith, of England, with a 60 H. P., E. N. V., Howard Wright biplane, and Philip Parmelee with a Wright biplane.

Under weather conditions decidedly unpropitious Clifford Turpin made two brief flights in a Wright biplane at Charter Oak Park on May 29th. Because of the wind, which freshened suddenly in the afternoon, and on account of his lack of experience in high wind flights, Oscar A. Brindley, Mr. Turpin's partner, did not essay a flight.

The Queen Monoplane Company of New York, makers of Bleriot type Gnome driven monoplanes, report a lively sale of their machines. Their business has grown to such an extent that they have recently ordered twenty Gnome engines for installing in machines now on order.

The New York Aeronautical Supply Company reports two more machines sold, one a Bleriot and the other a Curtiss type, and are working the factory to its full capacity in the general line.

Maximilian Dingfelder, president and designer of Maximotor Makers, helped construct the famous Daimler engine used in the German Mercedes automobile. He has been building marine engines for ten years, the last five of which his boats held the Detroit championship against the speediest racers brought against them from all over the country. He drove the first automobile on the streets of Detroit long before Henry Ford started the industry which nearly doubled the city's population in five years. For the past three years Mr. Dingfelder has been experimenting with aeronautic engines, and attending the big meets and exhibitions. The "Aeromotor" was put on the market by his company, the Detroit Aeronautic Construction Co., about a year ago. It is now flying in planes and dirigibles as far away as Japan.

We have just received from the E. J. Willis Company of New York, a copy of their latest 1911 catalogue, which we feel sure will be of interest to all who contemplate building an aeroplane or are engaged in so doing. The catalogue, in addition to listing all their goods, also contains scale drawings of the Bleriot XI monoplane, Curtiss biplane and Farman biplane.

An exceedingly interesting and well gotten up catalogue has been issued by the New York Aeronautical Supply Company of 50 Broadway, New York. It contains drawings and descriptions of all the parts used in the manufacture of aeroplanes and will be sent free to all interested parties.

SUCCESS

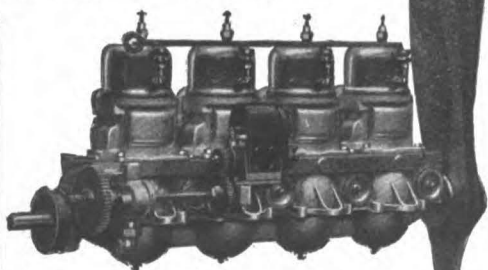
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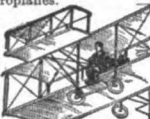
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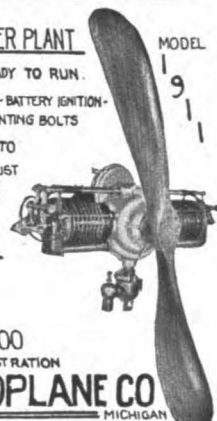
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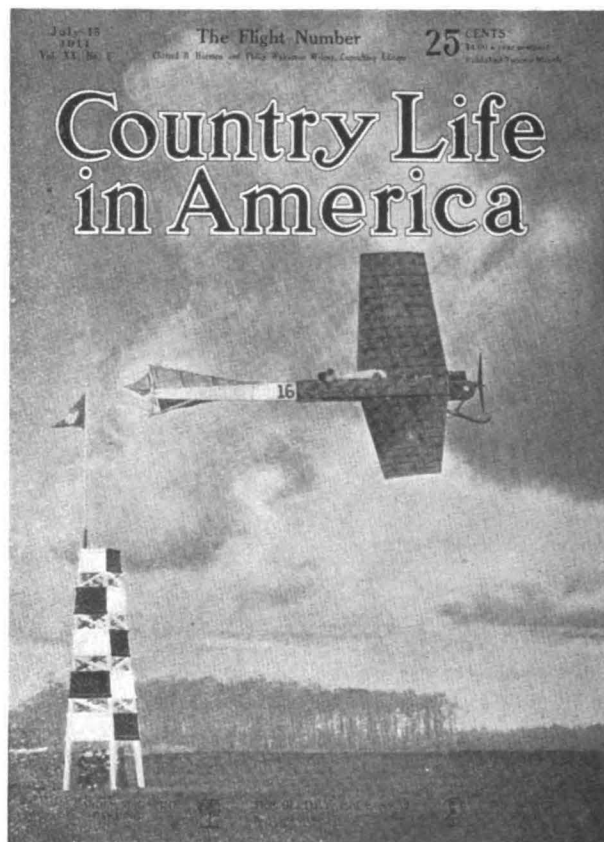
Forms Close—June 29

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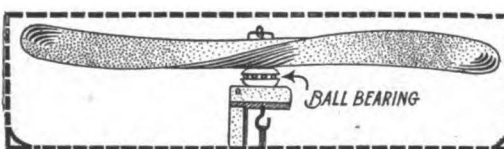


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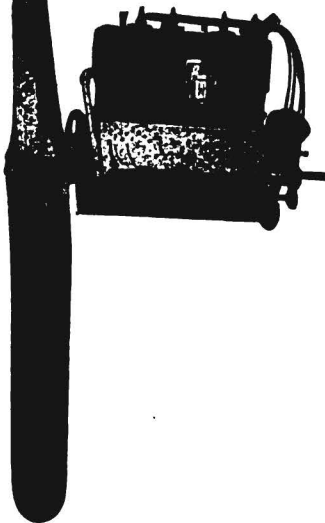
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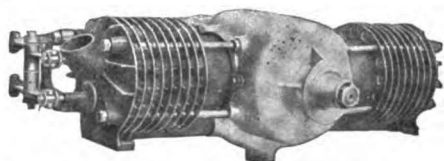
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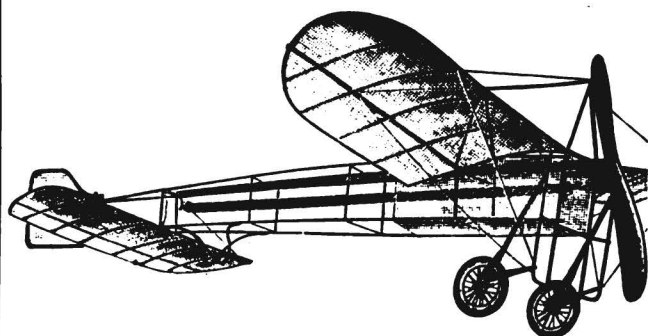
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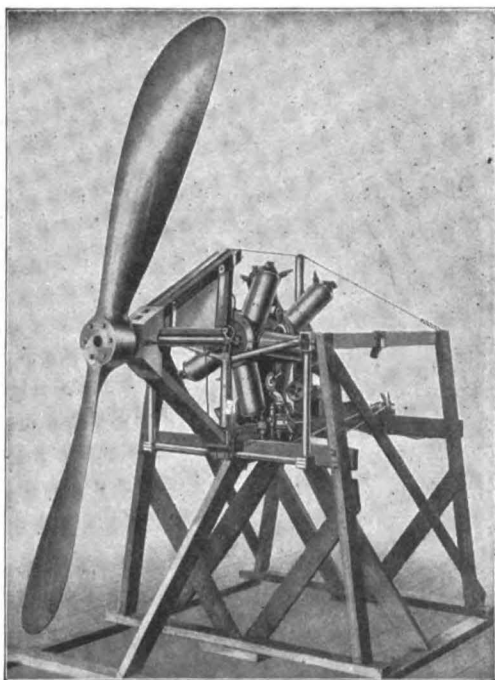
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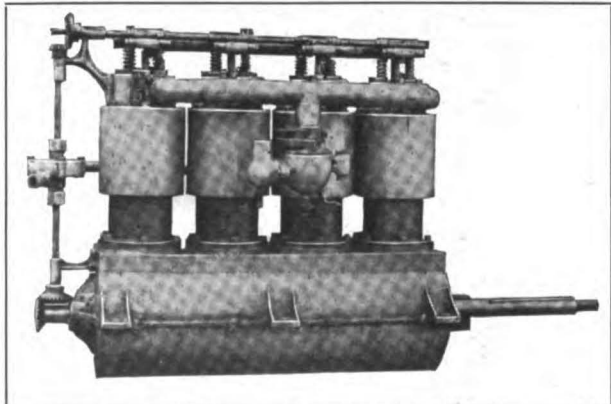
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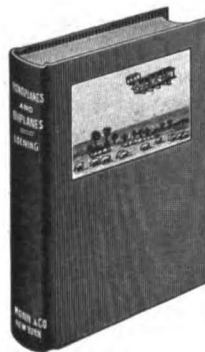
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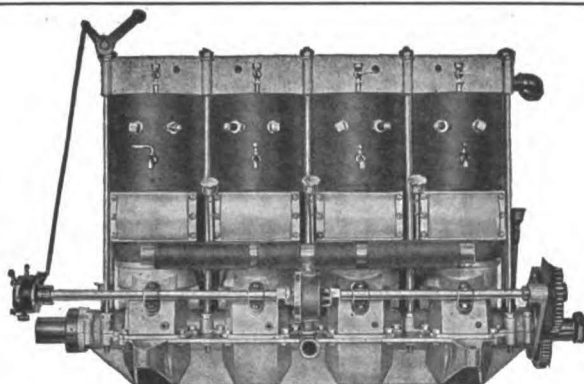
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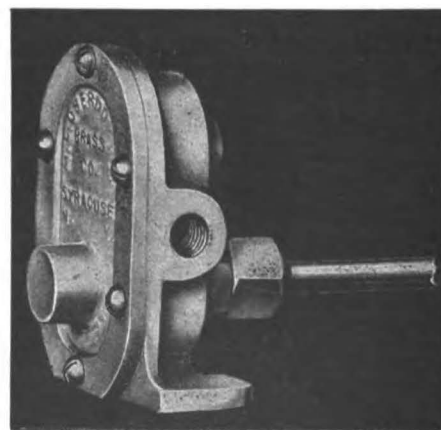
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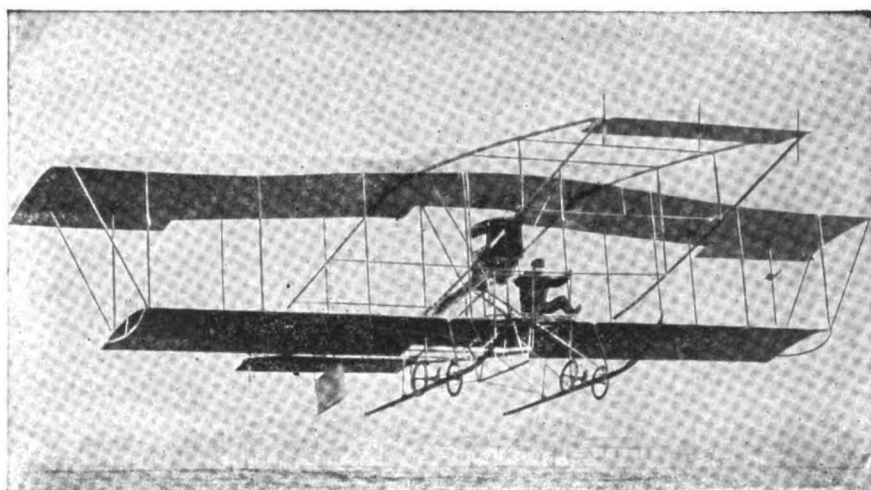
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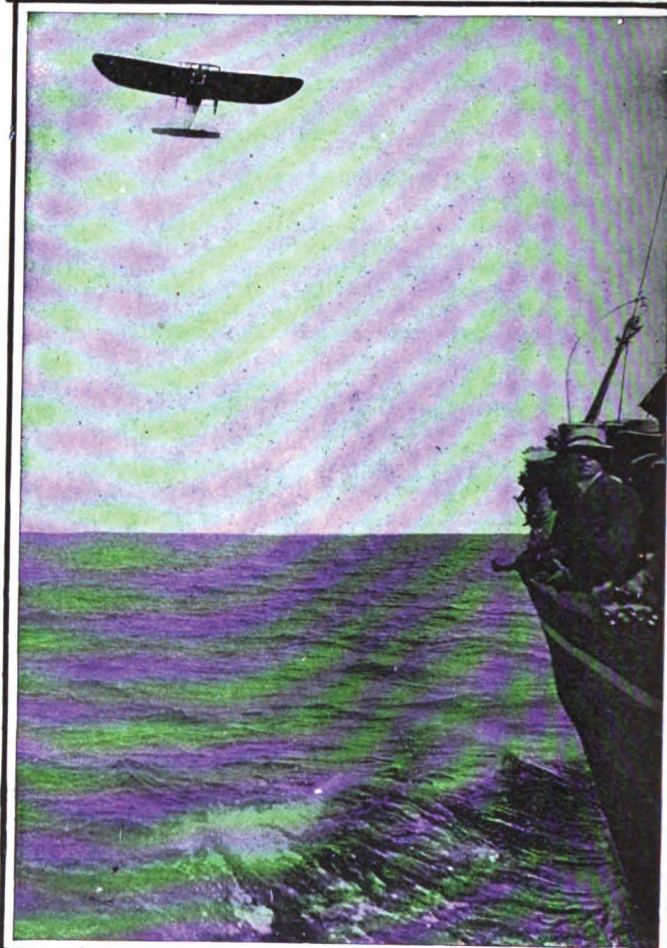
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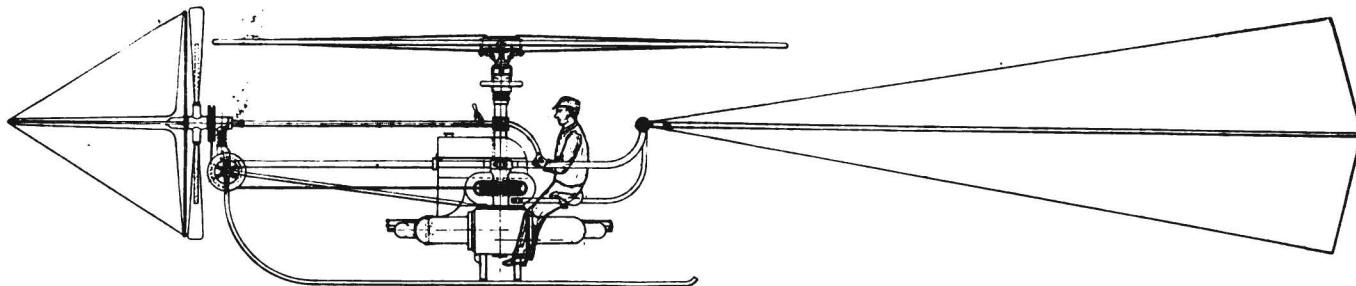
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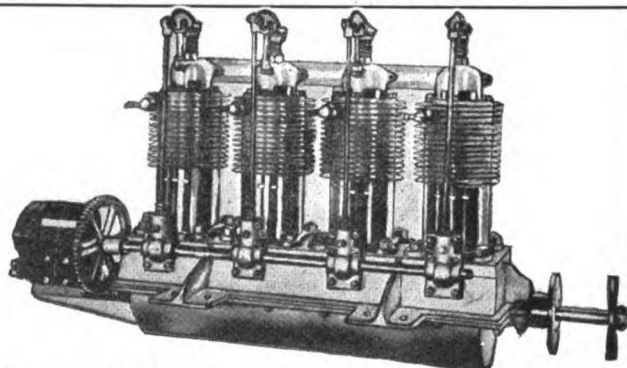


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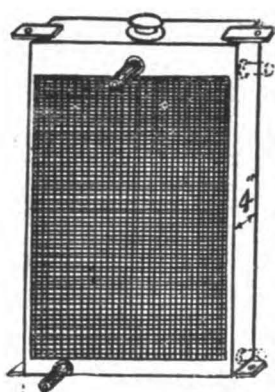
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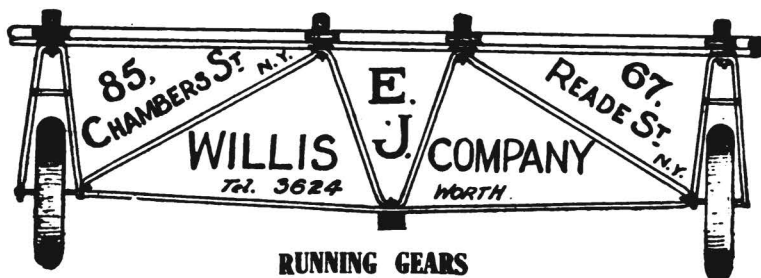
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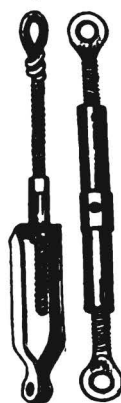
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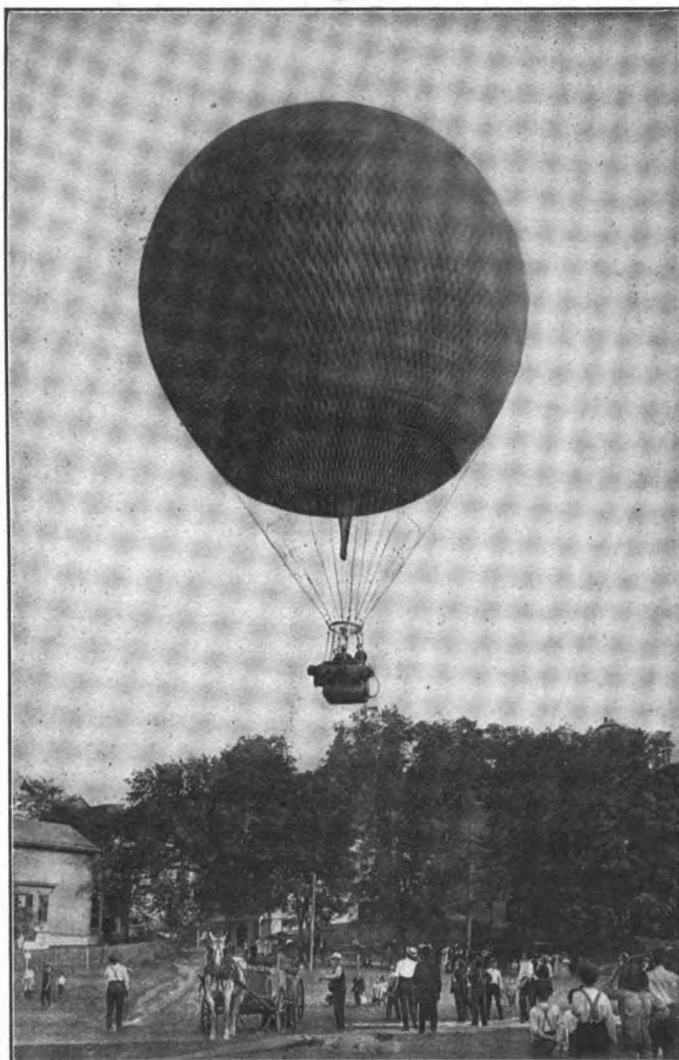
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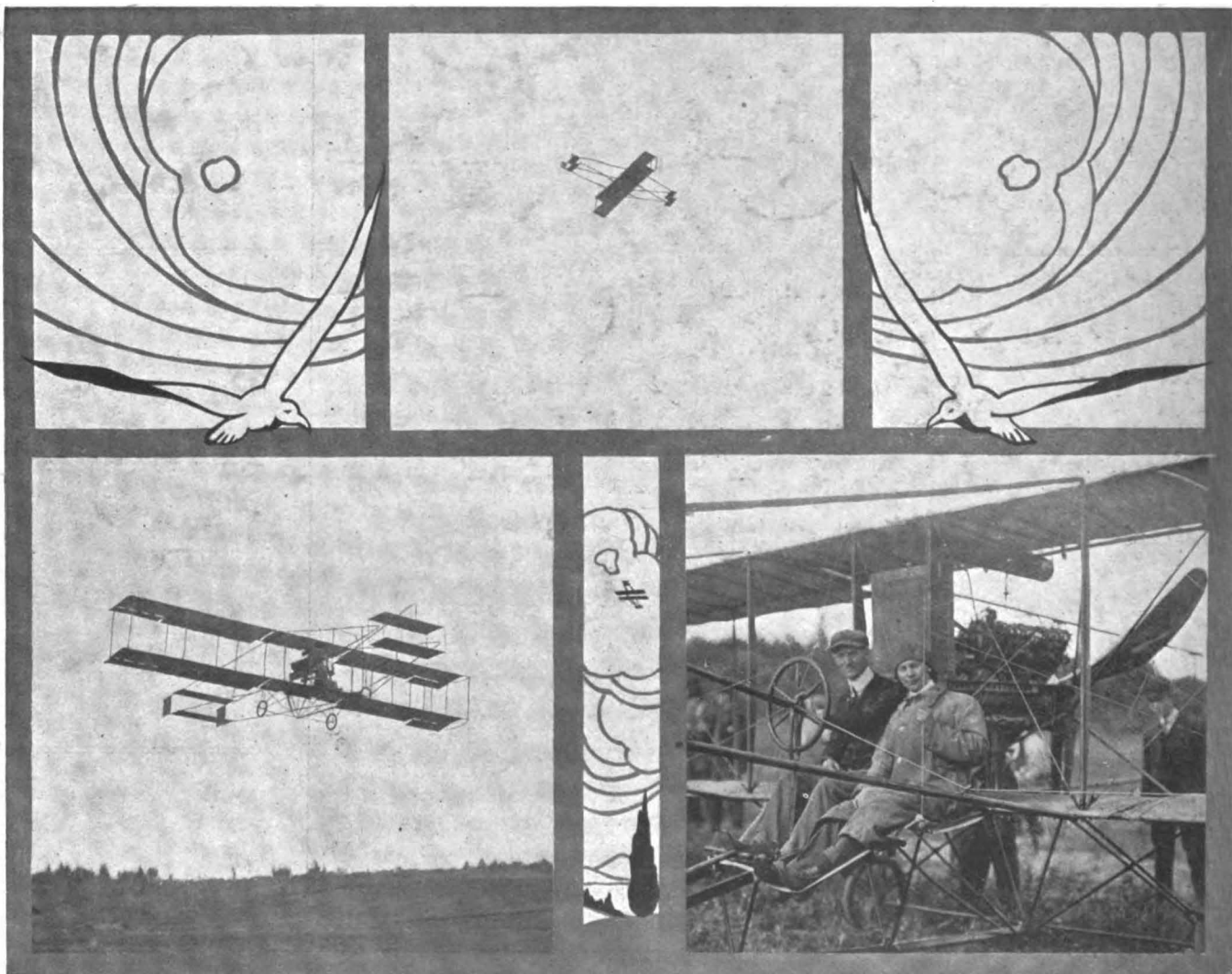
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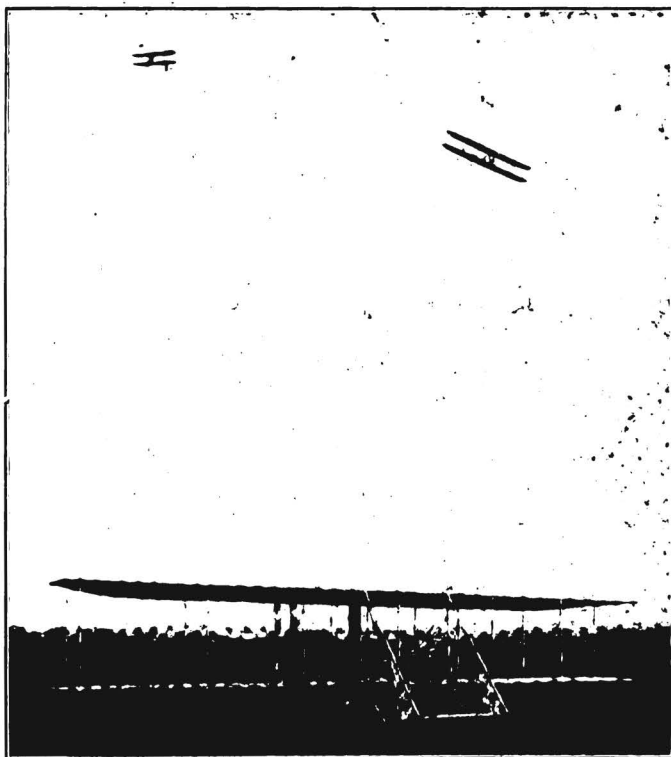
Top: Flying over East Portland, Oregon. Left: Close view of Walsh bi-plane in flight. Right: Passenger carrying at Country Club, Portland, Oregon.

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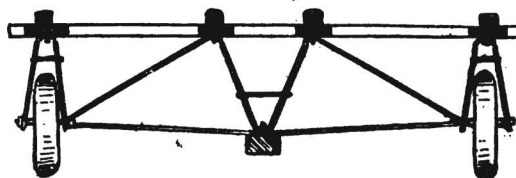
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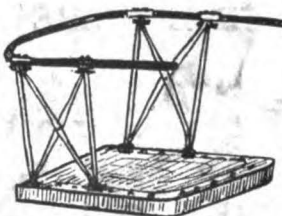
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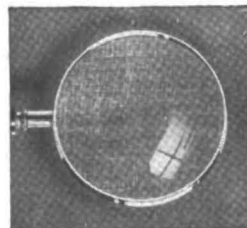
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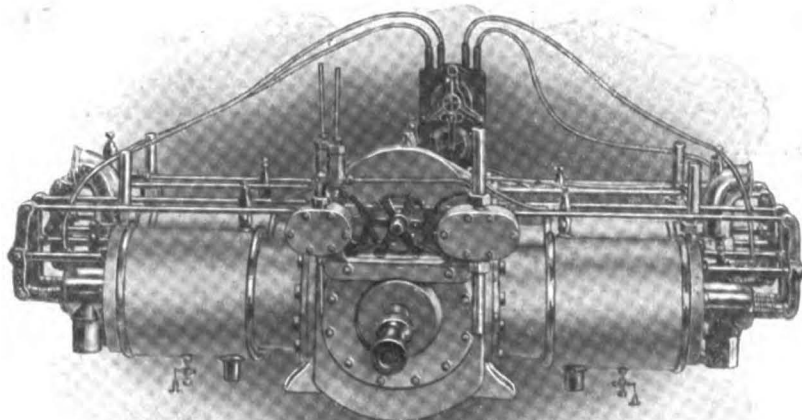
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