

to the study of aëronautics could well have been imagined. One or two minor errors of fact fail to impair the value of the original matter; the "Cross" dirigible is not non-rigid (p. 108); Hargrave, not Hargreaves, invented the box-kite; the inclined plane for elevating purposes was first practically and successfully employed by Monck Mason in [S.], forty years before it was adopted by Colonel Renard (p. 151); the map of Blériot's cross-Channel flight (p. 213) is inaccurate; and the brief mention of Langley's experiments (p. 21!) is misleading and totally inadequate. Paper, print, and binding are alike excellent; the hook is splendidly illustrated; its whole "get-up," in fact, is what one is accustomed to look for from Mr. Heinemann. The greater pity, then, that so fine, so thoroughly competent, a work should have been spoiled so signally.

¹¹ **"Fliegende Menschen,"** by Lieut.-Col. H. W. L. Moedebeck (Berlin: Otto Salle, 11/09; pp. 98; 8 plates and 07 illustrations; .) marks).—Among the indigestible mess of aëronautical literature that has recently poured from the press into the open maw of the public one is glad to find one work at least, of merit, and to which unreserved commendation can be extended. There is no need to enlarge upon the author's special qualifications to write a historical *résumé* such as the book under review; we will content ourselves with the assertion that no one has ever produced a better. The two essential qualities, conciseness and trustworthiness, are displayed in an unwonted degree in this work, which, as stated in the Preface, is intended for the "cultured layman," but which will undoubtedly be received with fully as warm a welcome by that specious individual, the expert. The single slight, very slight, fault we have to find is the title "Flying Men"—but, then, the "cultured layman" is, no doubt, responsible for that. A quotation from the Preface will convey an accurate picture of the merits of Lieut.-Col. Moedebeck's new book:

¹¹ In contrast to other books of this nature, I have endeavoured to present my facts systematically. . . . With regard to dates I have aimed at absolute accuracy. . . . Should the reader notice the omission of many names that figure prominently in every other work of this kind, he must ascribe this to the novel treatment which has omitted with a critical hand . . . everything that has not had an important influence on the development of aviation."

A quarter of the book is devoted to the history of aviation until the last few years; the remainder gives a brief and accurate picture of its present state. The best feature of the work is the convenient and able manner in which the separate development of the three great types—wing, screw, and plane—is maintained throughout.

"The Force of the Wind," by Herbert Chatley, B.Sc. (London: Charles Griffin and Co., 1909; 83 pp.; 3s. net).—This little book should be found most useful by engineers; and though not primarily intended for aëronautical students, it can be read by them with considerable advantage. The scope of the volume is best given in the headings of the chapters: The Practical Importance of Wind Pressure; The impulsive Force of the Wind; Variations in Velocity; Stream-Line Theory; Stress in Structures due to Wind; Windmills; Train and Motor Resistance; Effect of Wind on Water; and The Scouring Effect of the Wind. A remark on windmills will bear quotation here. "It is customary," says the author, "to confuse wind wheels with propellers. Although in some respects the one is the converse of the other, yet two very important points compel us to treat them differently. (1) There is no motion of the wheel in the direction of the wind; (2) Owing to a continuous and previously undisturbed supply of air meeting the wheels (except above a certain high critical speed), there is no question of the blades diminishing each other's action."

"Practical Kites and Aeroplanes," by Fredk. Walker, C.E. (London: Guilbert Pitman, 1909; 80 pp.; 1s. 6d. net).—Though this book is announced as a revised edition, it contains a number of small but irritating errors. Thus, the author is styled "Associate Member of the Aëronautic Institute," which has been dead for many years; and there are slips like, "*clief-ri'om-rr*"; "charovolant"; "Mr. C. Hargrave"; "Major-Genera I Baden-Powell," and so on. As a hand-book on kite-making it has some little value, and contains many useful tables; but it is distinctly out-of-date and needs not revision but re-writing.

CORRESPONDENCE

The Photography of Aero nets

To the Editor of *The Aeronautical Journal*

SIR,—In answer to your request, I have pleasure in sending you the following particulars relating to the photographs (reproduced on page 112).

The first photograph is the Clément Bayard airship, "Colonel Renard," rounding the course at Rheims, when it gained the prize for speed. This photograph was taken at 4.15 p.m., on August 29, 1909, at an aperture of *f*/6.6, and at a speed of 1/200 of a second.

The second photograph shows Rougier on a Voisin machine. This was taken at

A.40 p.m., on August 30, 1909, at a speed of 1/225 of a second, aperture $f/6$.

In view of the fact that the machines are generally flown in the evening, when the light is non-actinic and yellow, it is well to use very rapid plates, and also to give as slow an exposure as possible, without getting movement of the machine in the picture.

I have found that the Imperial Non-Filter Plate, speed 200 H & D, is very suitable; another plate which I used at Juvisy, and which gave very good results indeed, is the New Barnet Super Speed Ortho Plate, which has a speed of 400 H & D.

I would strongly recommend, as the result of my experience, the use of one or other of these plates for photographing in poor lights. The plates should be backed.

At Juvisy, the machines did not fly until it was quite dull, and therefore I was forced to lengthen my exposure to 1/112 of a second. I found that the machine in the photographs did not show any appreciable movement at this speed.

As the result of trying many developers, I would strongly recommend for flying machine work the use of the Imperial Standard Pyro Quinol Developer.

Trusting that these particulars may be useful,

I am, yours very truly,

ALBERT P. THURSTON

October 14, 1909

Foreign Aeronautical Publications

(In this list a selection of the more notable articles only is given.)

L'Aérophile

July 1st, 1909.—The Dirigibles. Aéroplanes.—The New Balloon Shed at Moisson.—The Aviation Week at Rheims.

July 15th, 1909.—A Starting Platform.—The Question of Helicoptères.—Aéroplanes.—The Dirigibles.

August 1st, 1909.—Aërodynamical Researches.—A Code for Aëronauts.—Sailing Flight Aéroplanes.—The Calais to Dover Flight, by Blériot. The Dirigibles.

August 15th, 1909.—Aéroplanes.—The Dirigibles.—Blériot's Triumph.

September 1st, 1909.—The Great Aviation Week at Rheims.—Aéroplanes (Goupil).—The Dirigibles—Aeronautical Maps.

September 15th, 1909.—After the Great Week.—Aviation at Donai and Rheims.—Aëro-

planes.—The Dirigibles.—The Rights of Aëronauts (The International Aëronautical Convention).

Aëronautics (U.S.A.)

July, 1909.—The Joys of Ballooning.—Talks with Inventors.—At Morris Park.—News in General.—Foreign Letter.

August, 1909.—On the Wright trials at Fort Meyer.—Aëronautic Construction Aids.—At Morris Park.—Gliding from a Hot Air Balloon.—Foreign Letter.

September, 1909.—High Explosives in Aërial Warfare.—The Curtiss Aeroplane—Construction Aids.—Talks with Inventors.—At Morris Park.—Air Propeller Problems.—Foreign Letter.

La Revue de l'Aviation

July, 1909.—On the Rotary Wing of Mons. Fillippi.—Official Results of Motor Trials.—The Osiris Prize.—Aviation of the Month.—The Stability of Aéroplanes.

August, 1909.—The Crossing of the Channel.—Aëronautics and the Army.—Aviation at Donai.—How I Crossed the Channel, by L. Blériot.—The Crossing of the Channel.—The Dirigible "La Belgique."

September, 1909.—Aërial Locomotion and the French Parliament.—The Rheims Meeting.—The Antoinette Monoplane.—The Dirigibles.

L'Aëro Mecanique

July 10th, 1909.—The Soltau Ornithoptère.—The Belgian Wing Committee.—Dynamic Flight.—The Gnome Motor.

August 10th, 1909.—The Crossing of the Channel.—Considerations on Aërial Navigation.—The Carlhausen Flying Machine.—The Bianco Ornithoptère.—The Bulot Motor.—The Wing.

September 10th, 1909.—Betheney Ornithoplanes.—The Resistance of the Air.—The Curtiss Biplane.—The Wing.

Illustrierte Aëronautische Mitteilungen

July 14th, 1909.—The International Airship Exhibition.—Airships at the I.L.A.—French Machines, The "Belgique."—Miscellaneous Notes.

July 28th, 1909.—Aërology and Airships.—Kites, etc., with the Danish Expedition.—Kite Stations on the Bodensee.—Weather Charts.—Aëronautics in France.

August 11th, 1909.—The International Airship Exhibition.—In a Balloon Over the Alps.—On Flying Machines (G. Wellner).

August 25th, 1909.—An Airship of 200 Years Ago.—Historical Section of the I.L.A.—The German Airship Map Commission.