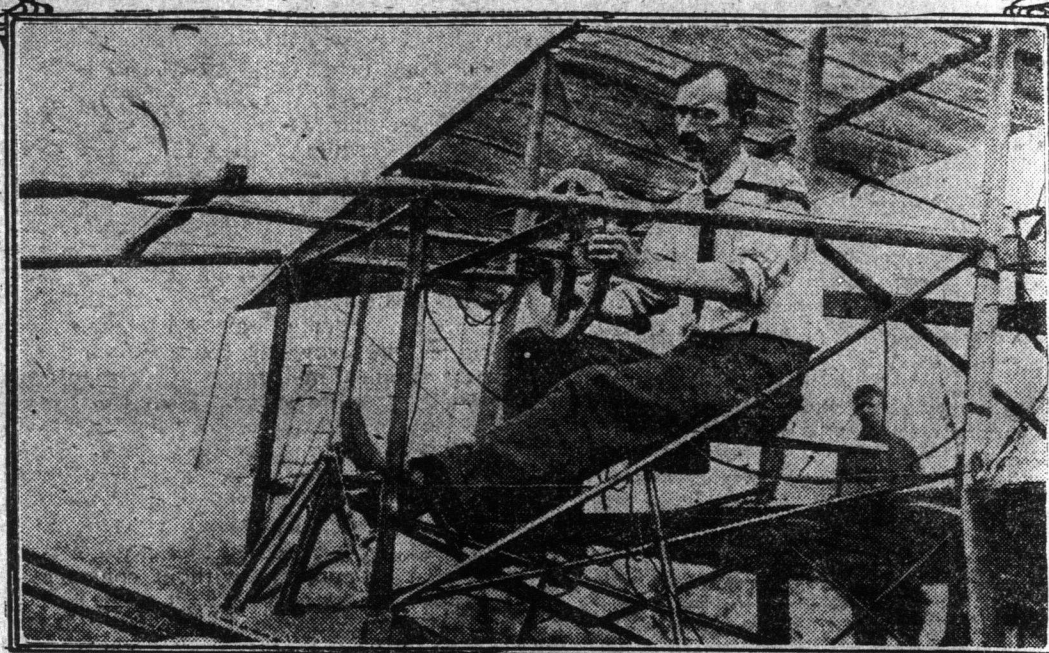


## THE CONQUEST OF THE AIR — ITS GRADUAL DEVELOPMENT



MR. G. H. CURTIS AT THE WHEEL OF THE "JUNE BUG"

**A** CORRESPONDENT of the London Times writes: Day by day the general public in England are becoming familiar with such announcements as "Another fine Airship Completed for the French Army!"; "Successful Flight of Count Zeppelin's Airship for 12 Hours, Manoeuvring in Every Direction in Mid-air!"; "Impending Trials of Italy's New Airships!" and so on. During the past week there has been an effort made through the Press to point out that England is only a third-class Power as regards her equipment for aerial warfare, but the real gravity of the situation has not seized either the public mind or that of the authorities, much less the Government of the country.

The following comparison of airships either complete or under construction will enable readers to see that there is apparently no "two-power" standard considered necessary for the United Kingdom in this department of our offensive and defensive forces:

France has at present seven, five of which are models of "La Patrie," which broke loose in a gale and was lost last November. These are stationed in different places; and there are also the "Ville de Paris," a magnificent vessel presented to the French Government by M. Deutsch de la Meurthe, and the "De la Vaulx," built for the well-known amateur aeronaut, the Count de la Vaulx.

Germany has five, respectively the "Gross," "von Parseval," Zeppelin No. 3, Zeppelin No. 4, and another built by Messrs. Siemens and Shuckert.

Italy has two, and they are to be experimented upon by Italian officers, probably this week, near Rome.

The United Kingdom has two approaching completion for further experiments—namely, the Nulli Secundus—unfortunately wrecked last year—and another, believed to be of almost identical design, shape and size.

There is no possibility of doubt that Zeppelin No. 4 has advanced in general excellence several degrees beyond that attained so far in the Military Balloon Department at Farnborough; but whereon lies the responsibility or blame for this? Not on the officer in charge of the department, Col. J. B. Capper, R.E., who succeeded Colonel James Templer, and certainly not on Colonel Templer, who for many years had worked hard and loyally, not only in building balloons, designing and commencing airships, training both officers and men to a state of efficiency, but also in endeavoring to convince the authorities of the pressing need for more money to carry out experiments and a substantial annual Government grant.

It seems an anomaly that last week the Chancellor of the Exchequer should announce in the House of Commons his intention of setting aside £6,000 per annum for experiments in tobacco growing in Ireland, whilst that is the exact sum which it is thought fit to allocate to the Balloon Department of the Army, at present our only aerial force, constructive, destructive, or instructive.

It is said to be possible that £25,000 will be applied to the official aeronautical section of our national defence system for the forthcoming year, and perhaps that may be considered a great advance by comparison with past years; but such a sum is totally inadequate for any real good to be effected, proper progress ensured, and England's safety from aerial attack made anything like equal to her status on land or sea.

The old cry that England, being an island, is only secure from attack by the upkeep of a powerful navy is fully recognized by all grades of society and all denominations of politicians, but it is not yet realized that England's safety as an island will vanish if not ensured against aerial attack, and the sooner this fact is ob-

vious to all the better for England. Airships, before aeroplanes, are undoubtedly going to prove enormously powerful factors in any warfare of the future, and later on, doubtless, the heavier-than-air machine will be capable of playing an important part; but if England is to be prepared against all emergencies, money, and plenty of it, must be promptly devoted to the building of airships, to experimental work, to training officers and men in this somewhat new science, to building of sheds or docks in various parts of our coasts to shelter these airships when constructed, and if necessary to provide State aid to the private or civilian inventor or builder of any reasonably good aerial craft.

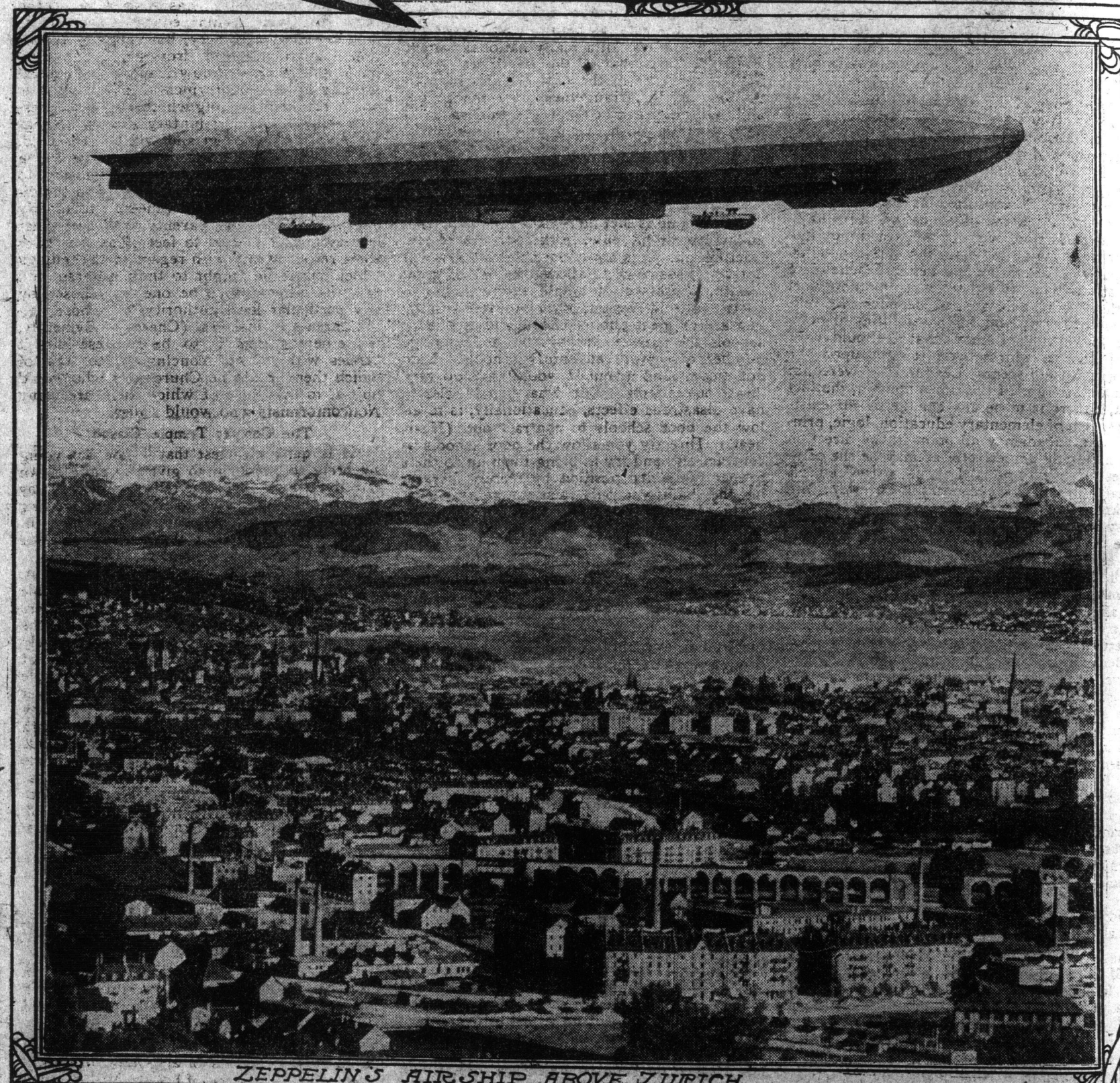
"Wake up, England!" must be the watchword again, it seems, and it is to be hoped that when the sleepy eyes have been rubbed and the wakening sense sharpened the first and most urgent cry of the now dormant Englishman will be for a substantial Government grant to the Board of Aeronautics, which new Department of the Service is bound ere long to come into existence.

The same correspondent, in a second article, writes: The previous article on this topic dealt with its importance from a national standpoint, pointing out the immediate need of a substantial Government grant for the construction of aerostats and sheds or docks for them, and for aeronautical training and experimental work, if England is not to be left far behind other Powers in this most modern method of attack and defence.

Ballooning pure and simple and the general principle of supporting human beings in mid-air by envelopes or gas-filled spheres has occupied the attention of adventurous people in a limited degree for many generations. More than forty years ago it was determined to organize a Balloon Department in our Army for experimental purposes, which work was entrusted to Captain, now Sir Charles, Watson. With hardly any funds at his command, a few men, and every conceivable difficulty to overcome, the progress made was slow, but equally sure. Every experienced aeronaut realized how extremely useful a balloon would be for scouting purposes, the range of vision covering an enormous area as the height of the balloon increases. The impossibility of controlling or steering spherical balloons, however, greatly restricts their possible usefulness in this direction; so the idea of a captive balloon secured to its starting point by a steel wire hawser appeared to be the only practical one for military purposes. This idea was carried into effect, and numbers of men belonging to the Royal Engineers were systematically trained for captive balloon work. In the abstract this sounds a perfectly simple operation, but "captive" work is far more trying to the aeronaut than the making of a free ascent, a sickness, much like the horrible complaint known as mountain sickness, frequently overcoming even the strongest constitution.

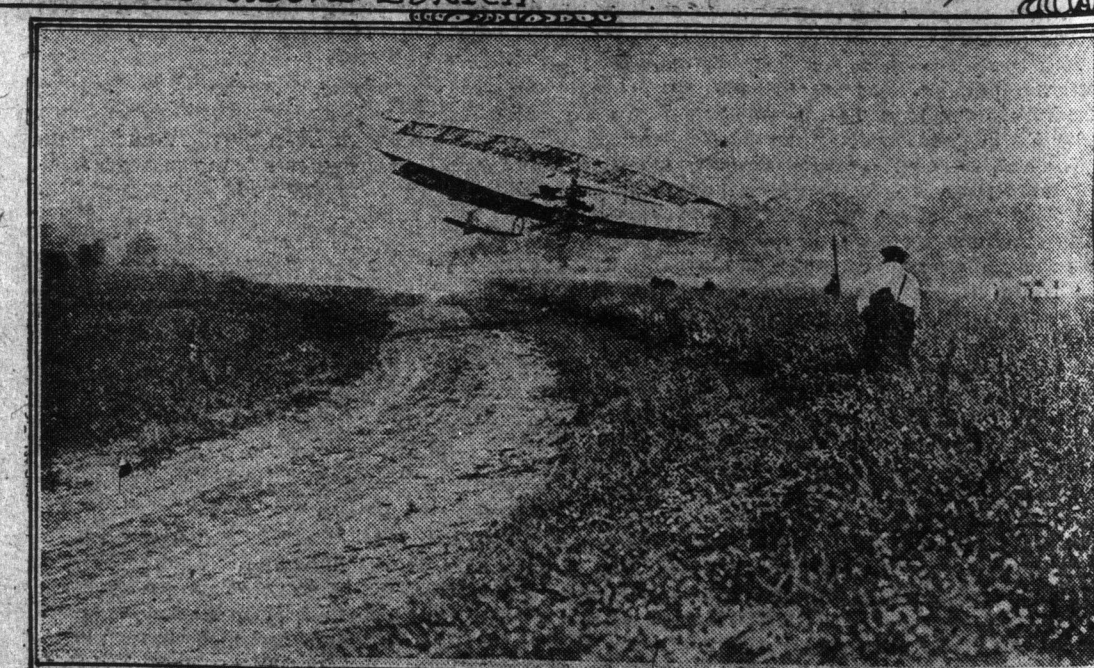
Some few years back the idea of a dirigible balloon or airship was much discussed, and designs for such vessels were prepared by officers of our military Balloon Department and by civilian and professional aeronauts both in England and abroad.

This was a step in the right direction, and the Nulli Secundus was designed, her envelope commenced, and various types of machines considered for working her propellers. Whilst this idea of a navigable aerostat was being slowly carried out in England, aeronauts in other countries were busy themselves on the same problem, and before the appearance of England's first airship last September several foreign vessels of a somewhat similar type of construction had been launched. As most people will remember, the Nulli Secundus made two or three brief experimental



ZEPPELIN'S AIRSHIP ABOVE ZURICH

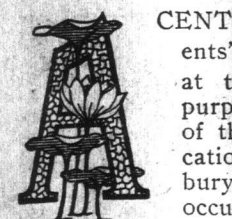
ascents before Colonel J. E. Capper, the present head of the Balloon Department, accompanied by Mr. Cody, brought her from the shed at Farnborough up to London, circling the dome of St. Paul's Cathedral, and eventually alighting in the grounds of the Crystal Palace, when it was found that the return trip to Farnborough was impracticable. Owing to the envelope's being left inflated and to a very strong wind, which suddenly sprang up in the early hours of the following morning, the Nulli Secundus received a severe shaking and bumping before it was possible to deflate her envelope. This caused a certain amount of damage to her steel rigging, and she was—somewhat ignominiously it seemed to the public—taken back to Farnborough in transport wagons. For this episode many people blamed the construction of the airship, and considered she was a failure. But this was far from being the case; and the damage was of so slight a nature that if it had been desired she could have been repaired and brought out again within the space of a very few days. No doubt, much valuable experience was gained by Colonel Capper during these ascents, and during the intervening months various alterations and improvements have probably been carried out, and the expected early reappearance of the Nulli



THE "AEROPLANE" "JUNE BUG" IN FLIGHT

Secundus is awaited with great interest. The view of Count Zeppelin's famous airship is of special interest at the present time.

In the face of the announcement that the machine has been totally destroyed after completing a very successful flight.



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