

# New Airships to Dwarf Graf Zeppelin

Aviation

While the Graf Zeppelin, world's largest airship, dwarfs her sister, the U. S. S. Los Angeles, American designers and enthusiasts are looking forward to 1931, when the all-American ZRS-4, an airship nearly twice the capacity of the Graf Zeppelin, will take the air. A little less than a year later the ZRS-5, a sister ship from the same mould will be produced here in America by the Goodyear Zeppelin Corporation as the result of a contract signed by the U. S. Navy just a few days before the Graf Zeppelin left Germany.

Even earlier, the Graf Zeppelin's world airship title will be challenged, for in England two airships, both 5,000,000 cubic feet in capacity, are nearing completion. They are John Bull's bid for supremacy in the air lanes as well as on the sea's surface. America may expect visits from the R-100 and R-101 in the spring although they may be flight-tested on the air routes to Egypt, India and Australia for which they were designed.

Not discounting the achievements of the Graf Zeppelin's flight, airship experts note that the new German airship is an enlarged edition of the ZR-3, now the Los Angeles, which four years ago made the same trans-Atlantic crossing from Friedrichshafen to Lakehurst on its way to join the U. S. Navy. The Graf Zeppelin is 771 feet long instead of 658 feet. The diameter of the Graf Zeppelin is only ten feet greater than that of the Los Angeles. Both have five engines and their external appearances are similar. The principal difference in the interior is accommodation for the gas fuel ballonets at the bottom of the large envelope and an extra corridor or "cat walk" running the length of the ship.

The new Navy airships when completed will be only fourteen feet longer than the Graf Zeppelin but they will be 132.9 feet in diameter and hold 6,500,000 cubic feet compared with the Graf Zeppelin's 3,708,000 cubic feet. The American ships will incorporate some new de-

sign factors that promise to make them unique.

Due to the use of inert helium instead of explosive hydrogen for inflation, it will be possible to place the eight engines inside the hull. Engine specifications have not been announced but it is considered probable that gasoline will be abandoned for heavy oil fuel. The internal engines will allow the ship to slip through the air with less resistance and there will be less danger of the engines being torn off in a severe storm. A complete airplane hangar will be housed within the hull from which five airplanes can be launched from a trapeze, like performers at a circus.

The frame work of the new airship will have a strength unequalled in any other design. Made of duralumin, the favorite airship metal, because of its lightness, every portion of the frame will be close to corridors and passageways and accessible for inspection and repair even during flight.

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## Stone Age Jawbones on Islanders

Anthropology

Massive jawbones, resembling in many details of structure the jaw of the ancient Heidelberg Man, have been found by Prof. A. N. Burkitt of Sydney University in a collection of modern human remains from the South Sea island of New Caledonia. He reports his researches in the British scientific journal, *Nature*.

The discovery of the Australian anthropologist suggests the possibility of a revolutionary change in our assumptions concerning the kind of a person *Homo Heidelbergensis* was. It has always been taken for granted that he was a pronounced lowbrow. Though no skull of his race has been discovered, and a single jawbone is the only Heidelberg relic ever turned up, this jawbone is of such brutish proportions that the assumption has always been that the rest of his head must have been shaped to match it, and that in particular he had a low and sloping forehead and a brain notably smaller than that of modern man.

The jawbones examined by Prof. Burkitt are more advanced in structure than the Heidelberg jaw in some respects, notably in having more of a chin, but they are decidedly "Heidel-

bergian" in their general depth and massiveness and especially in the width and configuration of the ramus, or angle where the jaw fits into the cheek. But the natives of New Caledonia are not lowbrows; even though they are savages their skulls are "modern," and their brains are just about as large as those of contemporary Europeans.

This leaves us with the possibility, disquieting to current anthropological assumptions, that the massive-jawed Heidelberg man did not necessarily have a gorilline cranium. And nothing short of the discovery of a Heidelberg skull can really settle the matter.

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## Rubberized Violins

Physics

Modern violins may be made to rival the product of the old masters by impregnating the wood with rubber latex before varnishing, according to the claim of a German investigator named Ditmar-Graz, writing in the scientific magazine *Natur und Kultur*. He states that this treatment causes the wood to remain permanently elastic.

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## Carriers For Colds

Medicine

When colds "run in the family" it is no sign that the family is constitutionally subject to colds. It may be that some member of the family is acting as a carrier, just as some people are typhoid carriers, suggests Dr. P. Watson-Williams in a report to the *Practitioner* (London) of observations made on ninety consecutive patients. Sometimes one child is known for starting colds among his brothers and sisters. This same child may become immune to colds himself but still harbor cold germs and be able to pass them on to others. If he grows up and has a family, he may still be starting colds in the family, although they are no longer traced to him.

The reason for this may be an unsuspected infection of his nasal sinuses, the honey-comb structures back of the nose and eyes. This same infection may be the reason for some children growing a second set of adenoids, when the first ones have been removed with the tonsils, Dr. Watson-Williams thinks.

Dr. Watson-Williams also reports a tendency for families that are prone to colds to have infections, in the abdomen, for instance in appendix and gall bladder.

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