

NEW BRITISH AIRSHIPS TO CARRY 200

LENGTH 800 FEET WITH SPEED OF 60 MILES AN HOUR.

Great Saving in Fuel Predicted by Burning Waste Hydrogen in the Engines.

The British government's recent decision to authorize the construction of two big airships, one by the Air Ministry and one by a private company, has led naturally to the question, "What will the new ships be like and how will they compare with present day Zeppelins and Shenandoahs?" The long series of disasters to hydrogenated airships has made the average earth-bound man somewhat skeptical of their capabilities, so one may understand his desire to be told why the new ships should be any more successful than those that have gone before them.

It is known that the proposed sky liners will have a hydrogen capacity of 5,000,000 cubic feet. This will make them about twice the size of the Shenandoah. They will be considerably fatter in proportion to their length than the Shenandoah, however, and the designers believe that they should therefore be stronger. If figures are desired it may be stated that the proposed ships will probably be 800 feet long, 115 feet in maximum diameter and 125 feet in height. They will displace 150 tons of air and be designed for a speed of eighty miles an hour.

Capacity of Aircraft.

Such a craft, airship enthusiasts

claim, will be able to carry 200 passengers and eleven tons of mail and freight 2,500 miles without alighting. Without a cargo and carrying only her crew of thirty-five, the ship would have a range of 11,500 miles at eighty miles an hour and 24,000 miles at half that speed. She would or should be able to remain in the air for 600 consecutive hours. Her cost, assuming that three ships are completed annually on a regular building program, would be close to a million dollars.

For any regular service, bases would be necessary every two or three thousand miles. A large and efficient base would include a hangar for one ship, two mooring masts, a gas plant and facilities for storage, and the necessary workshops and accommodations for the ground men, and would cost in the neighborhood of \$1,500,000. A smaller base, with only one mast and no hangar, could probably be built for a third of this.

Heretofore the necessity of letting out quantities of hydrogen to counter-balance the increasing buoyancy of the ship as the fuel was used up has considerably diminished the potential range of dirigibles. In his report on the commercial aspect of airship transport at the London Air Conference last June Major G. H. Scott described Rocard's experiments on burning the waste hydrogen in the engine in conjunction with gasoline, instead of deliberately letting it escape. Major Scott declares that these experiments were very successful and that this operation is capable of effecting an enormous saving in fuel and consequently increasing the range of the ship.

"The range of airships may be increased by 50 per cent. for the same amount of fuel carried," he states. "Had the R-34 been fitted for hydrogen burning on her Atlantic flight, instead of landing on Long Island with barely 100 gallons of fuel she would have had nearly 1,000 gallons surplus,

—AND THE WORST IS YET TO COME



or sufficient to have carried her beyond Chicago."

Better Range of Engine.

The airships of the future probably will be fitted with crude oil engines which will greatly reduce the danger from fire and cut the fuel costs to one-seventh of what they now are. Oil engines also require less attention than gasoline engines, and it is expected that, instead of running only 300 hours without overhauling, the proposed oil engines will be able to run 300 hours. In other words, an airship running on a regular schedule to India would require an engine overhaul only once every two months. Six engines of 600 horsepower each would be used in the proposed ships. These power units easily could be made detachable, so that engine overhauling could be done on the ground and the ship delayed only long enough to lower the old engine and hoist aboard the new one.

It is proposed to use hydrogen in the new airships because it can be manufactured practically anywhere in the British Empire, whereas helium in any quantity can be obtained only in the United States. What is more, hydrogen has a considerably greater lifting power than helium, and, while it is highly inflammable, the oil engines are expected to reduce the danger of fire to something like a minimum. It is argued that in previous fires and explosions aboard dirigibles it was always the gasoline vapor that caught fire first, and that this in turn set off the hydrogen. The mere fact that the hydrogen—5,000,000 cubic feet of it—is always there ready to be set off, however, must cause some of the ship's crew to ponder, especially if they are inclined to remember the R-33 and Roma disasters, to say nothing of the Dixmude.

Teaches Parrots to Talk.

Teaching parrots to talk is the unusual way in which one woman in New York city earns a living. It is a task that requires patience and skill.

The Three Misses Barker.

Such tea party furies, Such powdered head tossings, Such bright, angry glances, Such shrill hot words— But the three Misses Barker were like a little garrison, And they held out for their king In a land of rebels.

The years went by, And the years went by, And arguments cooled, And eyebrows went up, And fashions changed, And many things were forgotten, But the three Misses Barker did not surrender— They were loyal to their king In a land of rebels.

The grandchildren of their school-mates Were young men and women Who giggled and chuckled At worn-out heartburnings, But the three Misses Barker held their heads the higher, And died fifty years after the Declaration of Independence, Still true to their king In a land of rebels.

—Elizabeth J. Coatsworth.



And Then Probably Perspired. "My, how dough-faced Mabelle looks to-night." "She ran out of powder and had to use flour."

How the Shark Serves Coffee.

The more important a check the larger and more numerous, it seems to be the shark's pots. The shark, by the way, is a shark about his coffee; when guests arrive he must make it himself. The task, says Lord Raglan in the English Review, is too important to be left to the women. His lordship thus describes a visit to an Arab home in Trans-Jordan:

In the middle of the room is a square of stone set into the floor, and in that is a charcoal fire round which stand half a dozen brass coffee pots of different sizes. The beans, having been examined and the broken ones rejected, are placed in a huge iron spoon with a handle about three feet long. In that they are roasted till they are nicely brown, not black; then they are poured into the mortar, which is heavy and, like the pestle, is made of carved oak.

The operator produces a sort of tune by striking alternately the beans and the sides of the mortar. The task is not so easy as it looks, and to do it skillfully is considered something of an accomplishment. The coffee is then poured into one of the pots; boiling water and a pinch of cinnamon are added, and then it is brought up to the boiling point several times without being allowed to boil.

Next the host takes three or four little china cups without handles, and for each guest, beginning with the principal, pours out just enough for three sips, which are taken slowly and with much gusto. Sugar is thought to spoil the flavor. To pour out more than three sips is considered a sign that the guest is unwelcome, and if coffee is poured carelessly for a guest of high rank he will spill it on the floor. The host hands coffee round three times, and afterward from time to time one of his sons or servants usually passes it. To ask for it is not considered bad manners, though to ask for food is rude.

Belief.

This is the age of power, created and developed from all sources. Man's imagination is in a state where it ceases to be the crying cry of the most obstinate skepticism, is released to be the soul of a vast commercial undertaking. We may not understand the nature of a force, but we take it as a club in our hands for the conquest of space and time; and that victory means the promotion of business and the prolongation of life. Power is daily performing the dynamic miracle that transplants a mountain and divides the sea. It threads the air with a speed that rivals the passage of light and sound, which themselves are power visible and audible.

In the contact of one human life upon another there is no power greater than the influence of a steadfast, affectionate belief. If a friend has faith in us that what we promise we shall perform, this faith is an incentive such as no dim and distant prospect of a reward provides. Having a friend, we feel that we have a reason to persevere. Therefore, to be a friend is a far greater matter than to feel a sentiment. Friendship means believing in another person, with such unwavering fidelity that the other says: "I cannot disappoint this expectation. I cannot, because of this compact, give less than my best to the whole of my duty. If I was ever tempted to surrender, I cannot haul down the flag while this one remains who believes in me."

Because human belief in human beings is a quickening force, all the machines that men can build will never displace those who made them. Persons will still count in every creative scheme, because the supreme accomplishment is never an entirely impersonal process under a soulless direction. Somewhere there is a mind in which other minds believe. We who are molded in the image of the divine are able to do many things of our own motion; but we cannot leave infinity and its imponderable purpose out of the final reckoning.

We have faith in a Power overwatching and overruling. Our faith is the stronger because, this side of God, there are human beings who believe in us, in whom we believe.

A striking definition of personal beauty comes from the dean of an Eastern university. "Any woman of health and education is beautiful," he says and adds as a corollary, "If there is any lack of truth, there is a lack of beauty." The really beautiful pink cheeks are those that come from healthful outdoor exercise, and a beautiful personality is the result of knowing something and being some one rather than of posing as some one.

An insurance for \$3,000,000 has been taken out on the life of an American woman who manages a large shop in Chicago. This is claimed to be the largest sum secured on a woman's life.



The parish of St. Clement's Danes, Strand, London, recently celebrated the ancient ceremony of "beating the bounds." Photo shows members "beating the bounds" at Temple Pier.

Endurance Tests.

Life imposes tests of courage and endurance that none can evade. Some upon whom the sun of prosperity apparently blazes are in fact walking through a vale of shadows, though the world knows it not. The strange thing is that much of the cheering sympathy, with its tonic effect upon the downcast, comes from those who are best able to understand and to comfort because they have had profound experience of sorrow.

We are tempted to rail at fate when it imposes burdens; to ask why we should be singled out for this invidious distinction of punishment. The rest seem happy and carefree; why could we not be ranged with their gay and thoughtless company? But, if we would observe, we would note how often that felicity is transitory, and a swift and sudden cloud eclipses the noonday radiance.

A boy at school—rich, popular, handsome and clever—seemed to have every good thing in prospect to make him admired and envied by those capable of either sentiment. Of a merry disposition, he dispelled gloom where he came. Soon after leaving college, while he was "learning the ropes" of the banking business, he went blind. Bringing a resolute temper to bear on his problem he turned to poultry-keeping, with a courage worthy of Sir Arthur Pearson.

But there were many who wanted to stand in his shoes before the misfortune befell him who could not display a tinge of his fortitude in the darkness.

There is, of course, a certain test of character in prosperity itself. They deserve to be commended who are thoughtful stewards of their riches and are not vainglorious, puffed up, arrogant because of the money they control. But the severer test is not the burden that the power of money imposes. If you had money and lost it, or if you had health and lost it, the world bears you character from the way you rise to face the altered condition. The man or woman in you is known by the way you turn from joy to meet pain and failure.



Only the infantry. "You mean to say that youngster has joined the army?" "He's only gone into the infantry, you know."



Made a Hit. "Johnson expected to make a hit with his new car when he went to town yesterday." "He did—went into the first street car he met."

Conspiracy Thwarted by Daylight Saving Strategy

The world is full of famous clocks and many a great man has made timepieces his hobby. In the palace of the late Emperor Josef at Vienna, every room has a clock or two of unique design and especially fine workmanship.

The old Emperor had to leave home in order to get away from the ticks. In old Nuremberg there is a clock over the Liebfrauen-Kirche known as the "Mannleinlaufen." It seems that the Emperor Charles IV. took a great fancy to Nuremberg and issued a "bull" in the year 1356 decreeing that every succeeding Emperor should hold his first diet in that city. This was no mean compliment, and the City Fathers in celebration thereof erected the famous clock. It faces the crowded market place. Promptly at the first stroke of 12 doers on either side of the great clock swing open and seven solemn electors slowly file past the Emperor Charles IV. As each elector is directly in front of the Emperor he makes a quick "right face"—a sort of "eyes right" in salute to the Emperor—and resumes his march.

Munich would play second fiddle to no other Bavarian town, and it was therefore natural that these beer-sipping Munichers should build themselves a clock that could rank high in the clock world. This Munich timepiece is in a tower 230 feet high that surmounts the New Rathaus. It performs at 11 in the morning and 9 at night. No solemn passing in review for Munich! It is a joust between Bavaria, the other Alsace. Furiously they "unge and parry and thrust, until at length the fray ends as all good Munichers would have it—the defeat

of the Albatian. This clock not only delights the eye with its lighters, but tickles the ear a bit with its chimes.

Face's Wonderful Vista.

Venice boasts a clock that does everything except tell you your birthday. It tells you what the sun and moon are doing or ought to be doing at any given hour; it tells more about the stars than most books on astronomy, names the day of the week, the month, the date and the hour. It knows more about the Signs of the Zodiac than any almanac and it tops it all off by having a pair of immense bronze giants atop the clock tower look out upon the most vivid picture to be seen in any city, for they are perched high above the Piazza San Marco. The matchless Cathedral, with the four golden horses guarding the entrance, the sky-piercing Campanile, the Palace of the Doges, the Lion of St. Mark and St. Theodore, the patron saint of the old Venetian Republic, upon their granite pedestals, and the Grand Canal, whose blue waters ripple over the marble steps of palaces, are all a part of their wonderful vista.

Oldest of Clocks.

It is a long jump from Venice to Canton, China, but the Cantonese claim the oldest clock in the world, a clock that has never been wound up and never will be. A clock that has given true time for many centuries without the necessity for so much as a finger touch from man. It is the famous water clock. The water power which runs this unusual timepiece comes from a never-failing spring, which supplies to a nice, steady current. If you should be lost in the maze of narrow alleys that make

up the oldest part of Canton you may easily become oriented by asking almost any Chinese to show you the water clock, but it will do you very little good as far as determining the time of day. To read the hieroglyphics on the stone face of this clock would be an achievement akin to deciphering the proper method of filling out your income tax return. It cannot be done except by experts.

London town boasts "Big Ben"—perhaps the largest clock in the world—but its principal claim to fame is its size only, and the fact that a popular brand alarm clock—if an alarm clock could ever be popular—has taken its name.

These clocks—famous and unusual



A photograph of Queen Mary, the Queen of Italy and H.R.H. Princess Mafalda of Italy, taken while they were driving from Victoria Station to Buckingham Palace.



Nineteen-year-old Emily Bishop, of Chatham, England, who has been ordained a minister of the Primitive Methodist Church.

as they are—have had nothing to do with the idea of "daylight saving," which is only another name for setting your pieces back an hour or moving them forward an hour. That honor belongs to an old clock in the Swiss city of Basle. The story of this clock is as follows:

Once upon a time this city of Basle—which is on the River Rhine, not far below the famous falls of the river at Schaffhausen—was withstanding a hard siege. She was sore pressed by her enemies and there was a discontented element within the city itself. This discontented element entered into an agreement with the besiegers to betray the city. It was agreed between the traitors and the enemy that at the

stroke of twelve from the clock in the tower a simultaneous midnight attack would be made from within and without. Every contingency was carefully guarded against and the success of the scheme seemed assured, for, with the exception of a few sentinels and watchmen, the soldiers of the besieged city were fast asleep. Just before the hour of midnight the watchman in the clock tower received information of the planned attack. There was not sufficient time to arouse the garrison. Like Brave Heracles, however, this watchman in the clock tower was "constant still in mind" and he quickly thought of the idea of moving the hands of the clock forward one hour. The traitors within and the enemy without were all alertness and ears waiting for the last stroke of 12. The great clock struck one and stopped. The traitors within suspected treachery from without and the enemy without suspected treachery within. Great confusion reigned in both camps, and while all this was going on the watchman waked the garrison and the town was saved.

This failure on the part of the enemies of Basle resulted in the lifting of the siege. The Mayor, or the City Council, or whatever it was cities had in those days, decreed that, in honor of the quick-witted watchman, the hands of the town clock should always remain as he had set them on that memorable night—that is one hour ahead. For many, many years the great town clock in Basle was always one hour in advance of all others—this to the great amusement of the neighboring towns, for they considered Basle many years behind the times, when in reality it was an hour in advance.