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ENGINEERING AND SCIENTIFIC NOTES

Solar Eclipse.

Persons located north of a line drawn from Washington, D. C., to Indianapolis will, if they are energetic enough to arrive at that hour and uncomprising clouds do not intervene, have a chance to witness a partial solar eclipse at sunrise on the morning of April 21st. A total eclipse will be visible only north of 70 degrees latitude. The United States Naval Observatory has issued full calculations and maps of the eclipse.

Kapok.

This odd sounding name refers to a silvery vegetable fibre which grows in the seed pods of a tropical tree on the island of Java. The value of this material lies in its imperviousness to water and its remarkable buoyancy. For Java kapok is a cushion of real or artificial feather will support twenty times its own weight in water for a period of two months. An ordinary mattress stuffed with kapok will readily support a man, and it if becomes compact by continued soaking or exposure to the sun will cause it to swell to its original volume and buoyancy. The navy has already made a number of satisfactory tests on this material and, as a device recommended by the navy is likely to tide favor with the merchant marine, an equipment of kapok mattresses and cushions will probably be added before long to the increasing list of weapons for fighting the "perils of the deep." Other valuable features are that kapok is not readily inflammable and that, in the process of manufacture, the kapok fibers are treated with a compound which renders them vermin-proof.

Scientific Ascents.

Although many balloon ascents by human beings for the scientific study of the upper atmosphere have been rendered unnecessary by the use of such automatic recording apparatus, nevertheless a remarkable series of personal ascents have recently been made in Germany, some of them to an altitude of 5,000 feet. In one case a photographic apparatus was carried in the balloon and a test made of the audibility of signals at different altitudes. In others, specimens of the air were taken at great altitudes for the purpose of chemical analysis. Measurements of the electrical potential gradient and conductivity were also made.

Government Wireless.

The Scientific American for April 19, 1914, contains an interesting illustrated article on the large government wireless station at Radio, Va., which is the first of a chain of powerful stations designed to perfect a system of continuous radio service between the different parts of the United States and her dependencies.

ground up with oil this would afford enough black paint to give a double coat of from 17 to 37 square miles of surface. Figure out for yourself the value of the conservation of resources if this paint were to be redeemed and also the number of B.t.u.'s going to waste annually.