

Spotting the Submarine From the Observation Balloon

THE man who, in his youth was adept at climbing ropes, performing on the trapeze and in indulging in other acrobatic feats finds limitless field for the use of his skill in this war. Here we have a French observation-balloonist sliding down a rope from his basket to a steamer that has been towing him around. A hard day's work has just been completed. He has been looking for submarines in English waters, directing the work of destroyers, and otherwise acting as a lookout. It is climb around in rigging adjusting apparatus, slide down ropes, strain eyes out over wide stretches of water, and operate delicate wireless apparatus all day long. The responsibility and strain are great, and it needs a man in tip-top condition and with a natural aptitude to do the job.

Both armies and navies of practically all the countries at war use observation balloons in great number. They are indispensable for finding out what opposing forces are doing. The side temporarily without balloons is blind. The observer's job is one of the least spectacular and most important in the whole of the service, and requires men fit in every way.



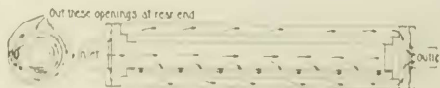
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Observer slides down after looking all day from a kite balloon for submarines and other hostile craft

Using a Maxim Silencer as an Automobile Muffler

IF, said one western manufacturer, the Maxim silencer will deaden the sound of a gun explosion, why would it not deaden the noise of the automobile engine's exhaust? Convinced of the soundness of this argument, the manufacturer has just placed on the market the Maxim muffler shown in the accompanying illustration. While cylindrical in shape like other mufflers, the new type has no baffle plates or perforated disks through which the gas must be forced, so that the muffler is eventually torn apart through the direct imping-

ing pressure of the gases, to the accompaniment of rattles, which are the automobilist's bane. Instead, it has two end plates with a series of non-concentric tubes between. As shown, each tube has an overlapping opening into the one of the next larger diameter through which the gas may expand gradually on its way from one end of the muffler to the other. As everyone is aware, it is the sudden expansion of the hot gases under pressure, to the atmospheric pressure which produces the noise. The object of a silencer is to allow them to expand so gradually that when they reach the outside aperture they are at atmospheric pressure.



New silencer for automobile engines on principle of Maxim silencer for guns