Adjustable Lawnmower Shaves Terraces

GRASS growing on terraces can be cut as easily as that upon the level lawn by using a lawnmower with an adjustable handle, invented by Robert R. Kitchel, of Ridley Park, Pa. Pressure on a toe clip locks the handle at the angle desired. The operator walks on level ground at the foot of the terrace, and cuts one longitudinal swath above another on the sloping surface.

Moving on a turntable, the handle latches at various angles

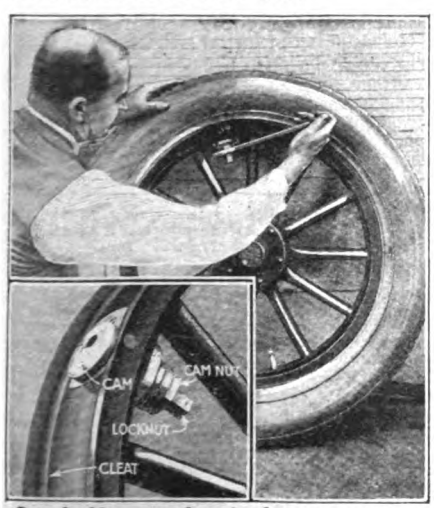
The adjustable handle is on a turntable that latches in the central position and at several angles up to a maximum of 30 degrees on each side.

You Can Now Change Tires in a Few Seconds

ONE nut, instead of the usual eight or ten, locks a new demountable rim, invented by H. N. Moody, of New Orleans, to an auto wheel. The tire may be tightened or released almost instantly by means of a locking cam.

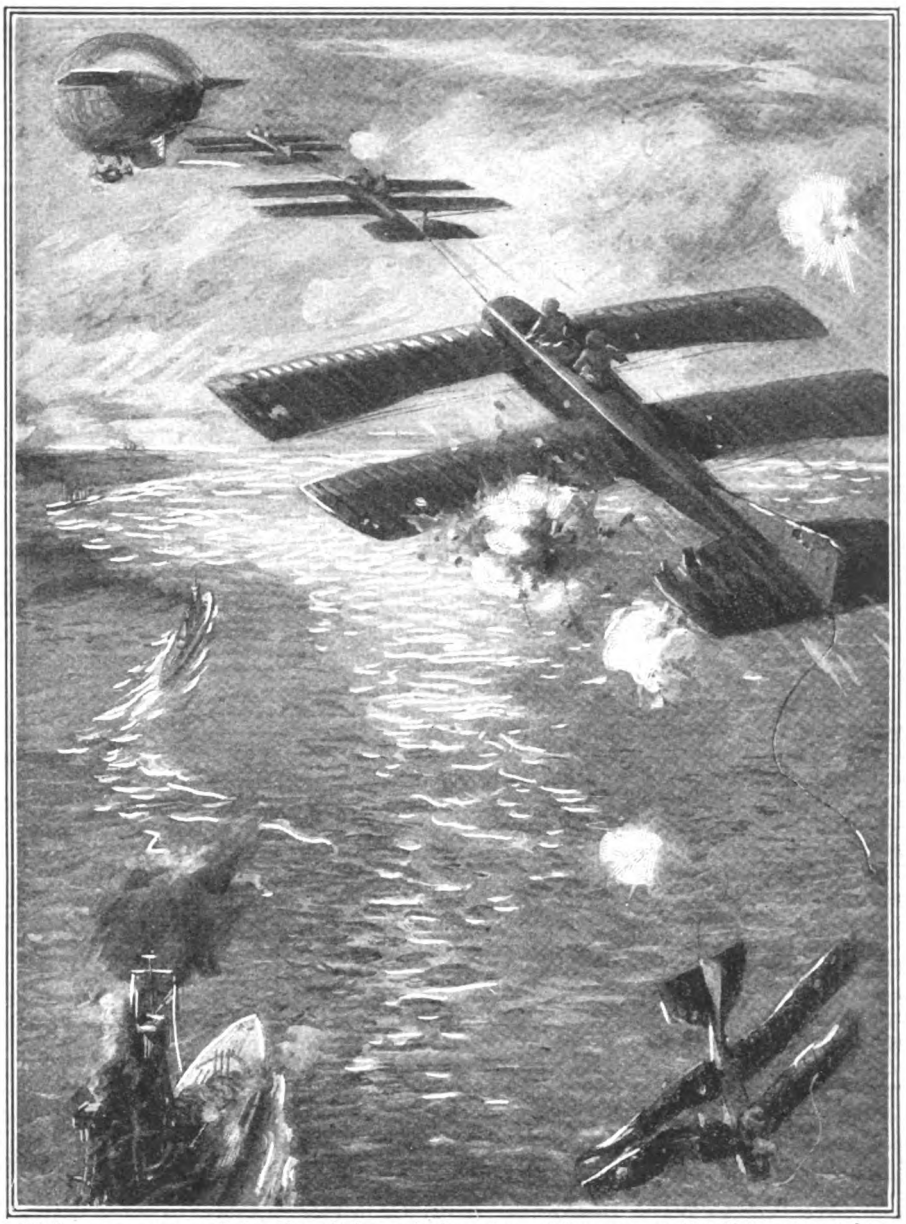
To the surface of the felloe are welded 10 metal cleats placed at an angle of 15 degrees. The inside of the demountable rim has 10 projecting lugs, each half an inch in diameter and a quarter of an inch high. When the lugs are wedged into the cleats, the rim is locked securely on the wheel.

The locking is accomplished by a single large cam disk that works between the cam lugs on the rim. One half turn of this master cam releases the tire.



One half turn of a single master cam nut, shown in the inset, releases tire

Fleet to Test Guns on Rag-Manned Gliders



With rag men as pilots, the gliders will be released from navy dirigibles at heights ranging from 3000 to 5000 feet. As they soar downward at a speed of about 45 miles an hour, they will be targets for anti-aircraft guns and small arms of the Atlantic fleet below

GLIDERS manned by dummies will be used to test the anti-aircraft guns of the Atlantic fleet during coming maneuvers off the Virginia capes and Cuba.

During the bombing tests off the Virginia capes last fall, naval officers objected that the tests were not convincing, since aviators would be shot down if they should attempt to approach a modern dreadnaught and launch their bombs as deliberately and from such low altitudes as they did against the anchored German ships.

Dirigibles Will Tow Gliders

To meet these objections, and at the same time give the gunners practice under battle conditions, a fleet of small gliders will be towed by dirigibles, it is reported, and released above the battleships from heights varying between 3000 and 5000 feet. Rag dummies in the place of pilots will be fastened in the gliders to give the marines using small arms a chance to test their marksmanship by picking off "airplane crews."

The gliders will be released in fleets of five, it is announced, and are expected to maintain an average speed of about 45 miles an hour as they soar down to the water. This is only about half the speed of bombing planes in full flight, but is more nearly equal to that of the giant bombing planes, carrying 2000- and 4000-pound bombs, which succeeded in sinking the German battleships in the former tests.

The gliders will be much larger than those used in land maneuvers by the army and navy. Each could carry two men with perfect safety, and accordingly they are somewhat larger than the majority of gliders now being built in Germany. If the tests are successful, the results will be valuable not only in determining the value of anti-aircraft gunfire, but in proving that the modern glider can be safely used to descend from the greatest heights.

Practically every ship in the Atlantic fleet, it is said, will take part in the attack on the gliders.

As a special service to readers, the Editor will be glad to supply the names and addresses of manufacturers of devices mentioned in POPULAR SCIENCE MONTHLY.