



This Automobilist Wears a Mask while He Races

THE calm, healthy driver of a racing automobile is a changed man after he finishes a race. He staggers from his place at the wheel—body fatigued, face lined and drawn. Perhaps his face is cut by flying splinters that have been chipped off the board track during the race.

Roscoe Sarles, a well-known driver, has had several unpleasant splinter experiences in the past. In consequence, he wore at a recent Los Angeles race a strange mask made of cham-
ois.

The mask completely covers his face and yet is so made that he can breathe easily. This is done by means of stiffened flaps that hang over the holes for the nose and mouth.

Goggles are worn to protect his eyes.

Geysers from Twelve-Inch Guns

AIMED at one target were ten twelve-inch guns and they were all fired at once. The picture below shows how accurate the shots were. Ten huge geysers burst into the air within a few yards of one another!

The three guns in the foreground did not participate in the shooting. They are mounted on the *Nevada*, which acted as a towing-ship for the target during this maneuver. Secretary Denby was standing under the guns when this picture was taken.

The ships that fired the shots were the *Utah*, the *Delaware*, the *Florida*, and the *North Dakota*, all belonging to the Atlantic Fleet.

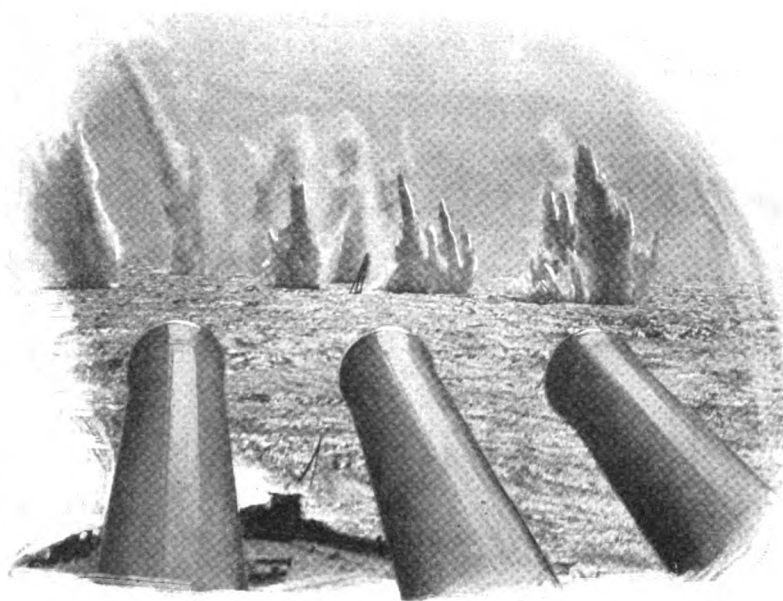


Breaks All Diving Records in Steel Tube

LOCKED in a cast-steel tube fifteen feet long, thirty-eight inches in diameter, and weighing five tons, A. E. Chisholm was lowered into the water. He went down four hundred and forty feet and stayed there half an hour, thereby breaking the previous deep-sea diving record.

This tube carries its own air supply, and Mr. Chisholm, the inventor, claims that a man can remain in it for four hours. The tube is lowered by a donkey-engine and cable.

A metal arm, with a steel hand at the end, reaches out from the side of the tube. This arm is controlled from within and it will do all kinds of work, from tying knots to lifting metal bars, making the invention especially valuable to divers.



Seen from the *Nevada's* guns at target practice

His Trunk Is His Dressing-Room

WHEN the lid of a trunk is opened, it is apt to reveal almost anything. In the picture below you see a strange trunk that, when opened up, becomes a dressing-room. The trunk belongs to a very young actor and it contains everything he needs in his business.

Inside the lid of the trunk there is a mirror, an electric-light fixture, and a collapsible dressing-table. The body of the trunk is divided into drawers that contain clothing and cosmetics. When the owner wishes to "make up," he pulls out the bottom drawer and uses it for a seat.

CALIFORNIA redwood may be artificially carved by sand-blast. Portions of the surface are covered by protective stencils and the design appears in relief against a uniform stipple background. Most of the work is done in the color of the redwood.



His trunk becomes his dressing-table

Finding the Tension for Piano Wire

FOR tonal analysis of pianos a synthetic instrument was devised, consisting of a series of tuning-forks.

By means of a master fork (shown in the lower right-hand corner of the illustration) having a platinum make-and-break, the

entire series is actuated, and by means of a series of rheostats the current to each fork is controlled. Increasing or decreasing the intensity of vibration of one or more of the forks changes the quality of tone.

The illustration shows a man comparing the synthetic tone produced by the electric-driven forks with the tone produced by a piano wire of the same pitch mounted upon an electrical sonometer.

As a result of much research and experimentation it has been demonstrated that piano wire is at its best acoustically at a tension of 160 pounds.



Comparing tone of piano wire and tuning-fork

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