Science Siftings

BY 'VOLT.'

Excessive Rains Due to War.

Father Martin S. Brennan, the astronomical scientist, of Kenrick Seminary, St. Louis, advances the theory that the excessive rains in the United States have been caused by the European war. He bases his assertion on scientific facts. 'The continuous and heavy gun fire in this terrible war (Father Brennan says) is probably the best explanation of the rains in this country. The gases, which are composed mostly of hydrocarbon, that arise after each explosion, upset the atmosphere, causing the oxygen of the air and the hydrogen from the hydrocarbon to mix, producing a watery vapor, which is carried immense distances by trade winds and currents. The watery vapor later condenses and precipitates in the form of rain. During the Civil War I was in St. Louis and particularly noted that after each battle it invariably rained in sections near the scene of battle, and sometimes as far north as St. Louis. It is reasonable to believe the same thing is happening now, only that the watery vapor is carried farther, which is due to the heavier firing in the European war.'

Marvellous Invention.

The naval operations of the war (remarks the *Standard*) have already given ample proof of the sure and deadly development of under-water attack. Mines and torpedoes—and particularly the latter—are being used extensively, and proving of the greatest efficacy. An American has lately succeeded in producing a new type of torpedo which is bound to add largely to the existing difficulties of dealing with the subtle nature of submarine warfare. The radio-controlled torpedo, as it is called, has been brought to such a state of perfection that it has already received the approval of the United States War Department. The invention makes it possible to control the movements of a submerged torpedo by wireless agency, to the utmost range of vision assisted by telescopes. The details of the invention have been kept very secret, and are now the exclusive property of the American Government.

Trench Periscopes.

Trench periscopes are the great field for European inventors these days, and scores of designs are being manufactured in great quantities and sent to the men at the front. The trench periscope is, in its simplest form, composed of two mirrors in a tube, so arranged that when the tube is pushed halfway up over the top of the trench the soldier can look into the mirror at the bottom of the tube and see what is going on in front of the trench, the scene being caught by the top mirror and reflected down to the lower mirror. Elaborate periscopes are being made that have magnifying lenses which give a wide field of vision and have other advantages; but the great run is on very simple ones that can be packed down into a little pocket case, and yet can be put into operation quickly. Another design has the two mirrors separate, each with a clamp on its side. The two mirrors are clamped to a rifle barrel, one a foot or two above the other. The rifle is then pointed up in the air and the man in the trench has a safe view of the enemy's territory.

Submarine's Treasure-Search.

A spherical submarine, now being built, apparently solves the problem of recovering treasure from ships sunk at great depths (says *Popular Mechanics Magazine*). The new submarine consists of a steel sphere, 8ft in diameter and capable of carrying two workmen. It is designed to be lowered into the water from a tender, but is provided with electrically-driven propellers, by which it can be moved about in the water as it hangs at the end of the cable. One of its essential features is a set of four electro-magnets, which, when energized by current from the motors within the sphere, serve to hold it securely to the steel hull of a sunken ship. Current for the operation is supplied through a cable running down from the tender. In addition to this equipment it will be provided with electric drills for piercing the side of the ship, and with a powerful search-light for working purposes and for exploring the bed of the ocean when the exact location of a sunken ship is not known.