# SNAP SHOTS UNDER THE SEA.

## How the Enterprising Camera Expert May Now Take Pictures Under Water.

With the development of the submarine boat has come a new science, submarine photography. Scientists who are now experimenting with compressed air, electricity and X rays for the solution of the problem of how to navigate beneath the sea, assert that the day is not far distant when, stepping out from a submarine boat anchored at the bottom of the ocean, it will be possible to go shooting with pneumatic guns in forests of coral and sea weed, and that pedestrians walking on the bottom of the ocean can take photographs of the scenery there as easily as if they were on dry land.

Recent discoveries show that rapid progress is being made in the use of cameras in water. The great problem of taking snap-shot pictures at the bottom of the sea is believed to have at last been solved by M. Louis Bouton, an eminent French scientist.

He has demonstrated that the sensitive plate is affected as readily by light passing through water as by light that passes through air. He has shown that the medium through which the light passes is a matter of small importance.

While he has contributed nothing new to the chemistry of photography, M. Bouton has, by his experiments, removed many of the mechanical difficulties that surrounded the taking of submarine photographs. From a long series of failures he has learned just what new appliances were necessary to the taking of pictures of this kind.

Each time he took down his camera to the bottom of the Mediterranean, where his experiments were principally conducted, he came nearer to final victory. Now at last he has succeeded in taking photographs of the bottom of the sea that are marvellously clear.

These pictures possess a singular interest, as they show the strange animal and vegetable life of the bottom of the ocean. Weird fish, strange crabs, odd creatures that are half fish half plant, and a multitude of curious and interesting mollusks are revealed by these new pictures.

The photographs of the submarine forests are startlingly novel. Seaweed makes an altogether different appearance when seen in its natural element from that which it presents when seen floating on the surface or driven up on the beach.

A grove of seaweed on the bottom of the sea, as these pictures of M. Bouton show, displays many of the characteristics of a grove of small trees or shrubbery. There is a well-defined underbrush, through which eels, crabs and curious aquatic insects prowl for food.

Higher up the longer seaweeds throw out their branches, and curious fish come and light on these branches like flights of birds on the branches of trees. Still higher the long fronds of the submarine plants project their slender fingers.

The whole is suffused by a dim, greenish light, which percolates downward from the surface of the ocean. A strange silence prevails.

The seaweeds oscillate gently, as if played upon by a breeze. Their delicate dark brown colors are relieved by the brilliant reds and whites of the coral plants and by the occasional radiance of a shell of mother of pearl.

Into such submarine forests as these the French scientist, wearing a diver's suit picked his way, with his camera and flash-light apparatus. M. Bouton found that the natural light to be found even at a depth of twenty feet was too weak to photograph by.

He discovered that the sunlight is enormously weakened by passing through a few feet of water. To take pictures at a depth of ten feet requires, he says, an exposure of several hours, and the picture is almost certain to be ruined by the movement of the seaweed and the disturbances caused by fish that, animated by curiosity, come up and look with the camera.

M. Bouton has perfected an apparatus for making a flash-light in the bottom of the ocean. On top of a keg, heavily weighted on one end, he places a magnesium powder apparatus.

This is hermetically sealed from the water by a round glass cover. His camera is also water-tight, so that he can use the ordinary sensitive dry plate.

The magnesium powder is exploded in its glass case at the same time that the plate in the camera is exposed. The strong light which this powder makes penetrates the water for a long distance.

It illuminates the darkest recesses of the submarine landscape. It brings into relief the strange, mysterious fish whose dark bodies may be dimly seen by the photographer among the submarine undergrowth, and it makes them stare.

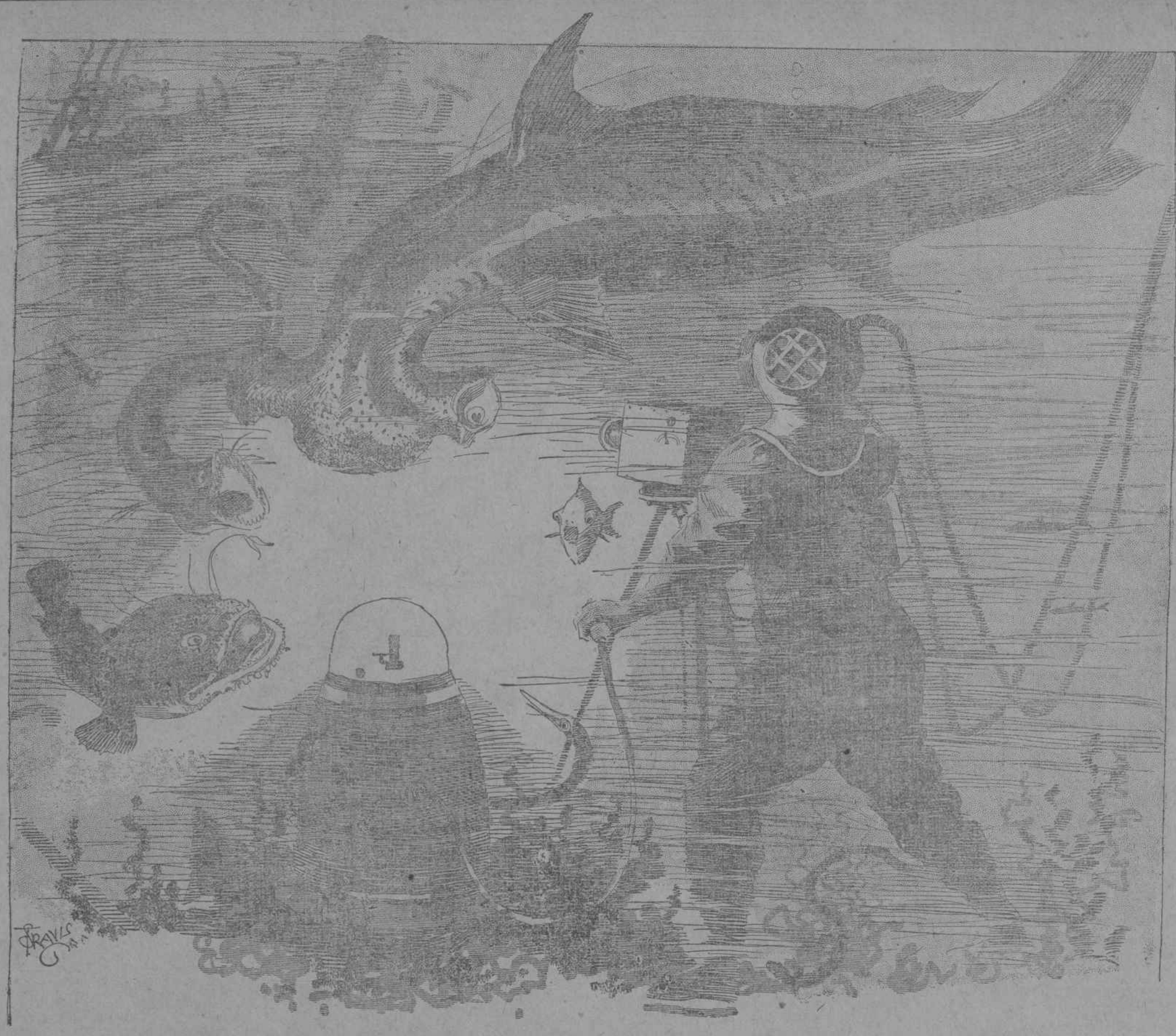
All the eyes of the fish within a radius of twenty feet are instantly turned upon the camera the moment this submarine flash-light is turned on, and, catching the light in high relief, these eyes show plainly when the picture is developed.

M. Bouton claims that there are many reasons why a submarine photograph should be even more clear than a photograph taken on dry land. He says that oftentimes there is absolutely no motion to the water. Given a good light powerful enough to illuminate the submarine landscape for a distance of forty feet, bringing out the detail of all the plants and animals in the foreground, and the resulting photograph must necessarily, he says, be clear and distinct.

The pictures he has exhibited as a result of his own work in these fields go far to show that he has succeeded in this difficult task. In many instances, he says, his strange dress and his movements in arranging the photographic apparatus attracted crowds of fish, which swam about him in motley crowds, animated by wonder and curiosity.

When the flash-light was burned, these crowds of fish, with their wide-staring eyes, were instantly pictured on the sensitive plate. Before the fish and crabs scuttled away in fear of the light, they left their photographs in the possession of this enterprising French scientist.

In one instance, he says, he witnessed a fight between two submarine monsters, and a picture shows them struggling in a death grapple. Another interesting picture he has developed shows a wreck on the bottom of the sea, with fish swimming in and out of the cabin windows.



M. BOUTON, THE FRENCH SCIENTIST, MAKING SNAP-SHOTS ON THE BOTTOM OF THE SEA.

## BRIBED BY BRIGANDS.

### A Band of Sicilian Cutthroats and Robbers Succeed in "Fixing" the Jury Who Tried Them.

The city of Syracuse, in Sicily, has a brand new scandal. A week or two ago a batch of robbers was brought before the assizes there to be tried for their lives.

While the citizens of Syracuse were congratulating themselves upon the fact that in this case "quick justice" would surely be done, the jurors thought otherwise. After accepting the plea of guilty in twelve cases, and listening to testimony that stamped the remaining three robbers as wholesale cutthroats, the jurors brought in a verdict of acquittal for the whole fifteen.

The town was dumfounded when this fact became known, and when the robbers left the court house free men, the commandant of the city ordered a company of soldiers to arrest them. The State's Attorney at the same time placed the jurors, one and all, behind iron bars under charges of conspiracy and the acceptance of bribes from the brigands and their friends. The robbers are said to have divided 100,000 francs among "the twelve men good and true."

## SOUP IN BRICKS.

Some of the troops garrisoned in Paris are now fed on a new article of food called Graisse de Normandie (Normandie dripping.)

Mutton tallow, from which the parts containing blood have been separated, is melted over a hot fire and cooked with the following vegetables: To every 100 pounds of tallow five pounds of carrots are added, seven pounds of leak, seven pounds of onions, one pound of celery, five hundred grains of parsley, five hundred grains of garlic, fifty grains of thyme and laurel leaves; also salt, pepper and nutmeg. After this olla podrida has boiled for several hours the whole soup is put through a sieve and the vegetable stuffs are thrown away.

The remaining mass is formed into bricks, which can be easily made into soup by dissolving them in water over the fire.

## WHITE ELEPHANTS.

### In Siam They Are Great Trophies and Are Pampered and Invested with Titles of Nobility.

In Siam elephants roam wild in the forests, but a royal edict forbids anybody to kill them. Great rewards, on the other hand, are bestowed upon any one who is so fortunate as to capture a white elephant.

When one is secured in Siam, it is fetched to the capital city and presented to the King. Thenceforth honors almost royal are paid to it. It is garlanded with flowers and pampered with delicacies.


IF THE EARTH WERE FLAT, THIS IS HOW THE SCHOOL MAPS WOULD LOOK

# THE EARTH IS FLAT.

## Enthusiasts Who Will Attempt to Prove This Very Curious Theory.

Experiments are soon to be made on the coast of Florida for the purpose of demonstrating that the earth is not round, but flat. Strange as it may seem, there are still a great many people on this terrestrial ball who deny that it is a ball of any sort. The celebrated Professor William Carpenter, who died in Baltimore, last September, was by no means the last of his faith.

In a picture of the earth as these unique theorists believe it to be—or some of them, for they do not all agree the "South Pole" is seen as a wall of ice surrounding the circular earth. This conception certainly fits well with the idea of the vastness of the Southern wastes of ice which have turned back all explorers.

The hardy searchers for glory have come much nearer to the North Pole, and have made the region around it seem small and familiar compared to that at the South, which is the true "terra incognita." In the flat earth picture, the North polar region is seen to be a small region of eternal cold in the centre of the circular world.

Alexander Gleason, the sage of Niagara street, Buffalo, gave long and hard study to this great problem of the earth's surface, and spent much money in publishing books and collecting information. At one time he advertised in a New York paper for sea captains who had made the trip from the West African coast around Cape Horn, his desire being to prove that the distance was much greater than it would be if the earth were a sphere. The information which he obtained seemed to be satisfactory to himself, though it did not convince many scientists and geographers.

The principal arguments advanced by the flat earth theorists are that a ship might seem to sail around a ball when it merely sailed around a circle; that all the effects of day and night could be produced by a fixed sun shining down upon a circular earth revolving like a card on a pin, and that the longest rivers have a descent of only a few feet.

They say that the phenomenon at sea of the ship "rising" or disappearing is to be explained by refraction, and that if the earth were spherical the compass would not point north and south.

These theorists assert that Sir Isaac Newton was crazy, and Galileo and Columbus mistaken; that if the earth were a revolving globe, a projectile thrown vertically upward would not fall on the spot from which it was hurled.

And all of these propositions are backed up by copious quotations from the Bible, such as the four angles, at the four corners of the earth, the four winds of heaven, the angels that ascended and descended, etc. The underside of the earth having no sun is, say these dreamers, the place of darkness and damnation, and that is reached only through the bottomless pit.

## BALLOONS IN A RACE.

### European Governments Send Up Their War Balloons to Test Their Power.

The Ministers of War of the great powers of Continental Europe arranged an interesting international balloon race recently to ascertain, if possible, the reliability of these adjuncts of warfare on a larger scale than ever before attempted. The result, as now officially announced, was not altogether satisfactory. It proved that, despite the efficiency of the balloon divisions of the various armies, wind and weather and other elementary contingencies are still playing an important part in deciding the fate of aeronautic enterprises, whether the balloon be manned or not.

The Russian Minister of War sent up two balloons, the one that ascended at St. Petersburg being of the "registering variety." This went up to an altitude of 4,700 feet, and there exploded.

Another military balloon, carrying an officer and five men, ascended to a height of 18,000 feet, where the thermometer was found to stand at 27 degrees. After a voyage of eight hours this balloon landed near Pikow, about 150 miles southwest of St. Petersburg.

The Russian authorities also sent up a balloon at Warsaw, which encountered northwest winds that drove it into Galicia.

The French Minister of War loaned the well-known registering balloon L'Aerophile III. for the experiment; it vanished behind the clouds within a few seconds. Although the authorities throughout France and the adjacent countries were advised to look out for the balloon, nothing was heard of it for several days and the War Department surmised that it had fallen into the North Sea and was lost. Finally word came from Gralde, a little place in Belgium, 150 miles northeast of Paris, that "Aerophile" had landed there safely. The balloon had travelled to an altitude of 47,000 feet, where it registered 63 degrees Celsius. It arrived at Gralde five and one-half hours after starting from Paris.

The German balloon division sent up its crack registering airship, the Cirrus, at Schoeneberg, near Berlin, this balloon having a record for swift and energetic work. During its first trip it travelled 600 miles in ten hours, rising to an altitude of 47,000 feet. On other occasions it rose to 54,000 feet, and on a trip to the Danish Island of Lolland, to 67,000 feet. This race was the last trip the Cirrus was destined to undertake. After two or three days it was found stranded on several of the highest trees in Grunewald forest, near Berlin. The apparatus showed that it had attained an altitude of 19,000 feet, and then dropped, its pear-shaped silk bag becoming defective.

The military balloon Russard, which has a capacity of 1,300 cubic metres and which was filled for this occasion with 1,000 cubic metres of hydrogen gas, ascended at the same time as the unfortunate Cirrus, with five men in its basket. The observers noticed an increase of temperature in the lower strata of the air. During the night the balloon remained at an altitude of 2,300 feet, but began to rise rapidly in the morning. The navigators tried to fly over the Baltic, but, on account of contrary winds, were obliged to land at Ribnitz, Mecklenburg, after being out eleven and a half hours.