

An improved machine for covering telegraph cables and wires with insulating material and with a leaden protecting envelope, has been patented by Edouard E. Berthoud, of Cortailod, and Arnold F. Borel, of Boudry, Neuchatel, Switzerland.

An ellipsograph, so constructed that it may be adjusted to describe ovals of different sizes with parallel curves without disturbing the guide pivots, and to cut ovals with their edges straight or beveled in either direction, as desired, has been patented by Mr. Edward L. Gaylord, of Bridgeport, Conn.

An improved ash sifter, which is simple in construction, and which operates without permitting the dust of the ashes to spread as with the ordinary ash sieve, has been patented by Messrs. Augustus F. Morse and George F. McIntosh, of Hallowell, Me. The invention consists in a box provided with a hinged sieve lid provided with a spring bar for holding the ash pan in the box when the lid is closed. The box is provided with a shaft mounted in a larger box provided with a suitable lid, and with an opening in the bottom through which the ashes can drop into a barrel or other receptacle upon which the large box is placed.

An improved suspended or swinging cradle has been patented by Mr. Robert S. Marshall, of Allegheny, Pa. It consists in combining with a cradle a table and two curved connecting rods.

An improved gag runner for harness has been patented by Mr. William H. Chapman, of Middletown, Conn. The invention consists of an elbow stud projecting at right angles from near the tip of the gag runner loop, and having its free end extended above the loop tip.

An improvement in suspenders has been patented by Mr. M. G. Gunning, of Amesbury, Mass. The invention consists of a pair of suspenders formed of the shoulder straps passing through and crossing each other in a slide made of two diamond shaped pieces of material united at the angles. The slide moves up and down and adjusts itself according to the position of the body.

An improved receipt book holder, which is especially designed for the use of weighers or other persons that must have the receipt book in a handy and convenient place, has been patented by Mr. Robert B. Dickey, of Waco, Texas.

Mr. Henry Dunphy, of New York city, has patented an improved wash board, whose frame is provided with a soap shelf, a series of polygonal rollers, and a series of brushes alternating with the rollers, so that the dirt may be quickly removed from the clothes, and the clothes made to move easily over the wash board.

An improved churn dasher staff, which is simple and convenient, has been patented by Mr. Lloyd T. Reid, of Rockport, Ky. The invention consists in a dasher staff which is flattened so as to be elastic or flexible at or near the middle of its length or is provided with an elastic piece at the point.

An improved ironing machine has been patented by Mr. John Vandercar, of West Troy, N. Y. This machine is designed especially for use in laundries for smoothing and drying collars, cuffs, and other articles. It is so constructed that the articles to be operated upon will be fed automatically into and through the machines.

A simple and automatic apparatus for leaching ores and other substances on a large scale, has been patented by Messrs. Rudolph Schulder and Edward H. Russell, of West Jordan, Utah Territory. The invention consists of a circular frame supporting the filter and moving on a circular track above an inclined circular table, and of three stationary rollers designed to elevate and depress the filter at certain points as it revolves, of a device for feeding the substance to be leached upon the filter; there is a device for applying the leaching solvent, and a precipitating tank for containing the solution passing through the filter.

An improved lantern hanger for carriages and wagons, which is both simple and convenient, has been patented by Mr. Edwin Lufkin, of Monroe, Me. The invention consists in a wire frame held to the dashboard by a spring arm, and provided with hooks for supporting a lantern and reflector.

Mr. Francis J. Crowley, of Gloucester City, N. J., has patented an improved apparatus for stretching, smoothing, and drying printed cloth, so that crimps, wrinkles, or creases are prevented from being formed in the fabric before it passes to the drying cylinders.

A combined wrench and screwdriver, which is simple in its construction and can be conveniently folded to be carried in a pocket, has been patented by Mr. John K. Collins, of Lebanon, N. H.

An improved gate has been patented by Mr. King A. Scott, of New Douglas, Ill. The invention consists in a novel arrangement of levers and devices connected therewith, whereby the gate may be opened and closed by a person on horseback or in a carriage by the manipulation of handles attached to the levers.

Mr. Juan F. N. Macay, of Charapoto, Ecuador, has patented a process of producing at one operation modified hydrated ferric oxide (Fe₂O₃.OH₂) and cupric chloride (CuCl₂) by the mutual reaction, in the presence of the air, of cupric oxychloride and solution of ferrous chloride,

SCALLOPS.

BY A. W. ROBERTS.

Scallop shells are best known to those who live far inland, as their beauty of form brings them into use for various kinds of ornamental work. The appearance in the shell is shown in Fig. 3, which represents one of nearly full size. For ornamental purposes much smaller ones are used, as they have the advantage of possessing more brilliant colors when young. To see the animal in all its wonderful

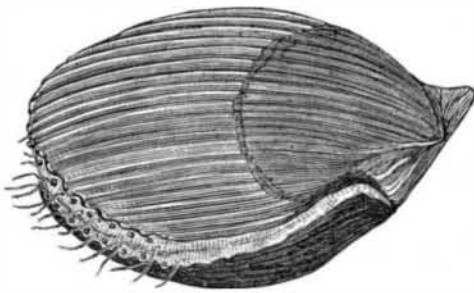


Fig. 3.—Animal in Shell, displaying Eyes and Tentacles.

beauty it should be placed in an aquarium or other vessel of sea water. When all is quiet it will open its shells as far as the connecting "mantle" will allow, and this will be seen to be studded with brilliant blue spots which glow like opals. Whether these brilliant spots are really eyes or not has not been clearly ascertained.

The scallop is capable of changing its position, and does so by the forcible ejection of water from a given point.

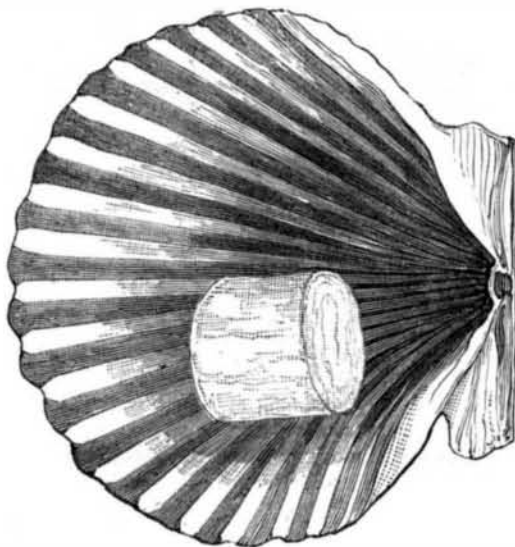


Fig. 2.—Showing Edible Muscle.

This mode of progress is analogous to that employed by the larva of the dragon fly. In Fig. 1 a number of scallops are shown moving about in the water, the drawing of which was taken from a tank at the Aquarium, which was labeled the "dancing scallops," as the scallops were constantly dancing up and down in the water in their peculiar zigzag motions. At one time the scallop shell was worn as a token that the wearers had performed a pilgrimage and paid their devotions to the shrine of St. James of Compostella. The story which connects the scallop shell with St. James is very curious, but too long to be repeated here.

The scallop as seen in the New York market consists of a short creamy white cylinder, and it is a great mystery to many how this can be a shell-fish. This cylinder is the only part of the scallop that can be eaten (the "mantle" or "rims" being very bitter and pungent when cooked, and as far as I know have no other use than that of baiting lobster

and eel pots), and consists of the strong muscle that holds the shells together. This is shown in Fig. 2 in its natural position, the rest of the animal being removed. This muscle corresponds with the eye of the oyster, but is much larger in proportion to the size of the animal, it having a similar fibrous structure. It has a remarkably sweet taste, much like that of the flesh of crabs, and is highly relished by many, though not considered as particularly digestible.

The scallop is found in abundance in many localities on our coast from Cape Cod to Florida, particularly in sheltered muddy places.

Astronomical Notes.

OBSERVATORY OF VASSAR COLLEGE.

The computations in the following notes are by students of Vassar College. Although merely approximate, they are sufficiently accurate to enable the observer to recognize the planets.

M. M.

POSITIONS OF PLANETS FOR JANUARY, 1881.

Mercury.

On January 1 Mercury rises at 6h. 34m. A.M. On January 31 Mercury sets at 5h. 25m. P.M.

Mercury will approach the sun until the morning of the 26th, when it will reach superior conjunction.

Venus.

Venus sets on the 1st about 8 o'clock P.M. Early on the evening of the 3d Venus will be not far from the moon. On January 31 Venus sets soon after 9 P.M.

Mars.

On January 1 Mars rises at 6h. 4m. A.M. On the 31st Mars rises at 5h. 43m. A.M.

Jupiter.

On January 1 Jupiter crosses the meridian about 6 P.M. On January 6, between 9 and 9:30 P.M., the moon passes north of Jupiter about 7° in declination.

On January 31 Jupiter sets at 10h. 29m. P.M. Making our observing hour between 8 and 10 P.M., we find from the "American Nautical Almanac" that on January 1 the first satellite will be invisible, having disappeared in occultation. On January 2, about 10 P.M., the second satellite will disappear in occultation.

On January 8, at a little before 10 P.M., the first satellite disappears in occultation; on the 9th, between 9 and 9:30 P.M., the first satellite comes off from the face of the planet. On January 10 the third reappears from eclipse about 9 P.M.

On January 11 the second satellite, having disappeared in transit before 8 P.M., is invisible.

On January 16, about 9 P.M., the first will pass on to the face of Jupiter.

On January 17, about 8 P.M., the third satellite reappears from occultation; and a little before 10 P.M. the first reappears from eclipse.

On January 20 the second satellite will be hidden in eclipse until nearly 10 P.M.

On January 24, between 8 and 9:30 P.M., the first satellite disappears in occultation, and at about 9:30 P.M. the third also is occulted.

On January 27 the second satellite is invisible, being behind the planet.

Saturn.

On January 1 Saturn will pass the meridian at about 6:30 P.M. On the 31st Saturn will set at 11h. 10m. P.M.

On the evening of January 7 Saturn will be seen near the moon in right ascension, but nearly 8° south of it in declination.

Uranus.

Uranus rises on January 1 at 9h. 47m. P.M., and on the 31st at 7h. 45m. P.M.

Neptune.

Neptune passes the meridian on January 1 at about 7h. 52m. P.M., and on January 31 at about 5h. 54m. P.M.

A Poisonous Fly Bite.

John Story, a warehouse laborer in this city, recently died of malignant pustule caused by the bite of an insect which looked like a fly.

Story was at work in a tobacco warehouse, and, while handling a bale of Havana tobacco, he felt a sharp pain in the left side of his neck. Instantly he clapped his hand on the spot, and a winged insect, which he took to be a gnat, flew away.

The pain was but temporary, and he paid no attention to it until the following day, when an inflamed pimple had formed on the spot where he had been bitten. This pimple annoyed him considerably, and he tore it open.

The next day the spot was very much inflamed, the inflammation extending in a circle as large as a silver quarter about the wound. The circle quickly enlarged, the inflammation increased, and Story became frightened and called in a physician, who recognized the wound as a malignant pustule, which would undoubtedly prove fatal.

The skin about the wound burst, and the inflammation extended along the neck toward the head, and the lower portion of Story's face was swelled to twice its natural size. Symptoms of blood-poisoning showed themselves, and the patient lingered in great agony for two or three days, when death ended his sufferings.

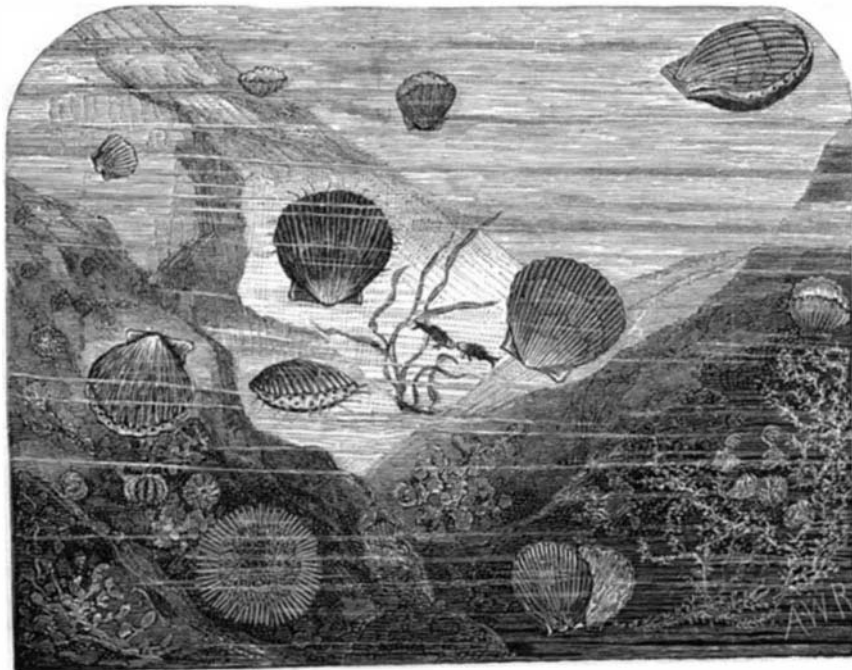


Fig. 1—SCALLOPS DANCING.