An Improved Glue Dressing for Wounds.

Cabinet makers and wood workers generally are familiar with the uses of glue in dressing tool cuts and other slight wounds incident to their calling. The glue pot is always handy in their shops, and a glued rag answers as well as the best adhesive plaster.

In a recent paper before the Philadelphia Academy of Surgery, Dr. Hewson recommends the addition of acetic acid to the glue, and a little attar of roses to cover the odor of the glue and the acid. This compound spread on paper or muslin makes, he says, a good substitute for adhesive plaster for surgical use. It is easily and quickly prepared simply by putting into a vessel of boiling water a bottle containing one part of glue to four, by measure, of the acid, and letting the bottle remain in this bath until the glue is fully dissolved and mixed with the acid. Common glue may be used and officinal acetic acid, to be had at any drug store. The mixture should be kept in a wide-mouthed bottle, well stoppered by a long cork, which can always be removed by heating the neck of the bottle. Care should be taken to keep the mouth of the bottle clean by wiping it well with a cloth dipped in hot water. A bottle of this cheap and easily prepared dressing would be a good thing to have at home as well as at the workshop.

A New Cure for Malaria.

There is at least poetic justice in a story that comes from British India, tending to show the power of locomotives (when properly approached) to drive away the malaria which railways, or rather railway construction operations, have so long been charged with causing.

A poor villager of Kattywar had been afflicted for a long time with remittent fever, and no amount of idol worship and penance availed to arrest the malady. At length a friendly neighbor advised him to approach the "Bhoot" in the newest shape in which the former had seen him recently taking his daily run in that part of the province, chafing and fuming. The fever-stricken villager consequently traveled a distance from home, and at sight of a railway locomotive, fell on his knees, tendered an offering of corn and sweets, and extolled its might The devil was appeased; the worshipper found himself rid of the malaria.

NOVEL ROAD ENGINE.

We have on several occasions illustrated steam road wagons which promised well, but for one reason or another have failed to come into anything like general use. We now give an engraving of a carriage using neither steam nor solid fuel, consequently avoiding the necessity of carrying water and coal. The fuel, which is at the same time the motive agent, is common illuminating gas, which is mixed with a certain proportion of air, and exploded in the cylinder in the manner common to well known gas engines. The engine is secured to a frame, which is supported at the rear by the axle, and in front by a caster wheel, whose frame is provided with a lever moved by a rack and pinion, the shaft of the pinion being provided with a hand wheel, which is turned one way or the other in the operation of guiding the carriage.

The box upon which the passengers sit contains a weighted bellows filled with gas, which is admitted to the cylinder through a valve working across its forward end. The vehicle is provided with a brake which is within easy reach of the driver.

The engine can be instantly stopped and started, and its speed may be varied by varying the amount of gas admitted to the cylinder. A skilled engineer is not required to operate it, as the management of it is very simple. The inventor prefers to use high wheels similar to velocipede wheels, and to connect the piston of the engine directly with a crank formed in the axle, but he is not confined to this construction.

This novel vehicle was recently patented by Mr. C H Warrington, of West Chester, Pa.

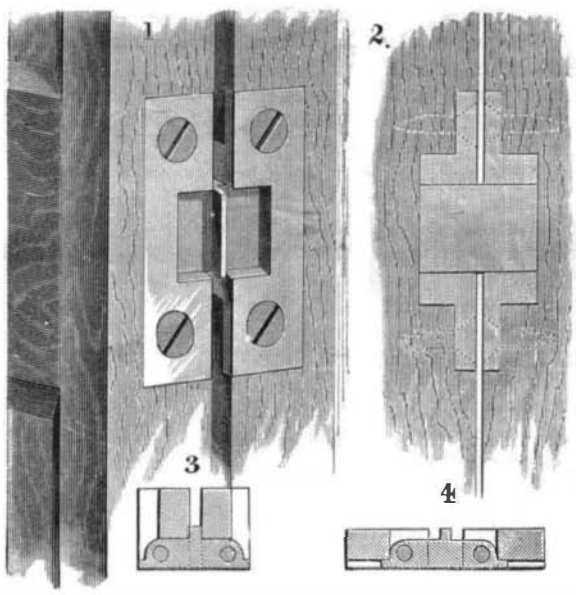
WARRINGTON'S ROAD ENGINE.

International Exhibition of Electricity.

The *Journal Officiel*, of October 26, publishes a letter from the Minister of Post Offices and Telegraphs to the President of the Republic of France, asking that dignitary's co-operation in organizing an International Electrical Congress, which shall be under the auspices of the government in order to give the enterprise that character of independence which is an essential condition of success. The design of the proposed exhibition is to bring together from every source every species of apparatus which is designed to develop, transmit, and utilize electricity. It is proposed to hold the exhibition, if it can be organized, in the Palace of the Champs Elysees from the 1st to the 15th of November of 1881.

IMPROVED HINGE.

The hinge shown in the annexed engraving may be set in flush with the door and jamb, thus doing away with the projection so objectionable in the ordinary hinge. Fig. 1 shows the position of the hinge when the door is open. Fig.



MORGAN'S IMPROVED HINGE.

2 shows the hinge with the door closed. Fig. 3 is a horizontal section of the hinge closed, and Fig. 4 is a section showing it open.

The two leaves, attached respectively to the door and jamb, have each two flanges, between which a connecting link is hung with joint pins. The link has at its center a vertical flange stop, against which the leaves of the hinge strike when the door is closed; it also has flanges at its ends, against which the leaves strike when the door is opened.

It is a simple matter to apply this hinge, as it is always set in flush with the edge of the door and jamb.

As the door is opened the leaf attached to it turns on the link until the door stands at right angles with the jamb, when the leaf strikes the flange on the side of the link, and both link and leaf move together until the door is open. This hinge can be used to advantage on flat surfaces, such as piano covers, writing desks, and cabinet furniture. This invention was lately patented by Mr. John T. Morgan, of New Brunswick, N. J., who may be addressed for further particulars.

New Process of Peeling Peaches.

In certain California peach-drying establishments the work of peeling the peaches has been much simplified by the following process: A crate filled with fruit is dropped into a vat containing hot lye, and there shaken. It is then removed to a tank of pure cold water and the lye is washed away. The skins of the fruit by this process become so separated from the pulp that they are drawn off with one motion of the hand. This saves much time, labor, and expense. The new process causes the fruit to dry more readily, and a very slight loss in weight results.

RECENT INVENTIONS.

Mr. John L. Volkel, of Sulphur Springs, Mo., has patented an improvement in breech-loading firearms adapted for rapid firing. The inventor dispenses with a separate device for extracting the shells, and uses a swinging lever carrying the breech block, that is formed to receive the cartridge and retain it while being fired. The cartridge is thrown out by the act of opening the breech.

A churning apparatus, so constructed as to give a very rapid motion to the dasher by a slow movement of the driving power, has been patented by Mr. Charles B. Davidson, of St. Joseph, Mo.

Mr. Lewis A. Fish, of Faribault, Minn., has patented a simple and convenient device especially adapted for use in flouring mills and feed stores and granaries for holding bags open for filling and conveying them, open or closed, from place to another.

A plow so constructed that the share or point will have a rocking movement while drawn through the ground, to cause it to more thoroughly loosen the soil, has been patented by Mr. Henry F. Edey, of Bridgetown, Island of Barbadoes.

A razor, which is provided with detachable blades, which can be easily removed and replaced, has been patented by Messrs. C. J. J. Sadler, of Milford, Pa., and P. C. Sadler, of New York city.

An improved adjustable wrist-pin, which is simple, convenient, and effective, and prevents noise and irregular motion, has been patented by Mr. Lafayette Thomas, of Marshall, Mo. The invention consists in a wrist-pin formed of a cylinder attached to the pitman and fitting into the cap-shaped head of a pin that passes longitudinally through the cylinder, the pin being held in the desired position by a screw nut provided with teeth in which a sliding spring catch takes and prevents the nut from rotating.

A machine for flattening and sharpening plow colters has been patented by Mr. John T. Duff, of Allegheny, Pa. This invention consists in a novel arrangement of flanges for clamping the colter, and rollers for beveling its edge.

Mr. George H. Williams, of Fort Smith, Ark., has patented a machine for making bricks, so constructed as to mould the bricks, press them, and deliver the pressed bricks upon off-bearing belts automatically. It is simple in construction and rapid in operation.

A cheap automatic cut-off, to regulate the flow of water from the roof of a building into a cistern, for the purpose of directing the first washings of the roof from the cistern, has been patented by Mr. Dennis Brady, of New Orleans, La.

A shank support and protector for boots and shoes has been patented by Messrs. Edson P. Hadley, of Shelburne Falls, and Thomas Joyce, of Buckland, Mass. The object of this invention is to prevent the boot or shoe from ripping at the shank, and by protecting the shank to prevent it from being cut or worn by shoveling, spading, or any pedal labor, or from being burned when the wearer rests his foot on the cope of the grate or stove for warming.

Mr. Ira E. Davenport, of Mechanicsville, Vt., has patented a brake for bob sleighs which consists in a novel arrangement of levers and devices connected therewith, whereby the brakes are applied to the front sled by the momentum of the rear sled when the speed of the team is checked or when holding back in going down hill.

Mr. Charles G. James, of Petaluma, Cal., has patented an improved stock car which is simple in construction, and in which the stock can be housed and fed conveniently.

Frank W. Wardwell, of Cambridge, and Charles E. Lettenmayer, of West Lamerville, Mass., have patented an improved book cover protector, which is simple, cheap, and easily applied.

Messrs. Charlton Patterson and Herman L. Abrahams, of Russell, Kans., have patented a sulky plow in which the adjustable axles can be raised and lowered to regulate the depth at which the plow works in the ground without throwing the wheels out of line, and without affecting the set and gather of the axles.

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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 Cortaillod, 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 isdesigned 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 ($Fe_2O_3OH_2$) and cupric chloride ($CuCl_2$) 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

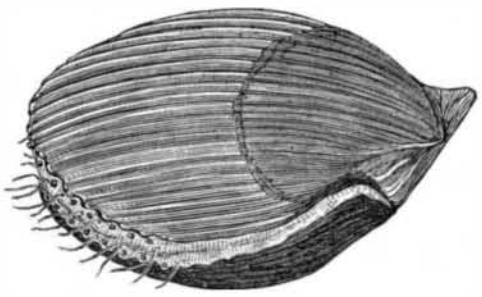

Fig 3.—Animal in Shell, displaying Eyes and Tentacles.

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.

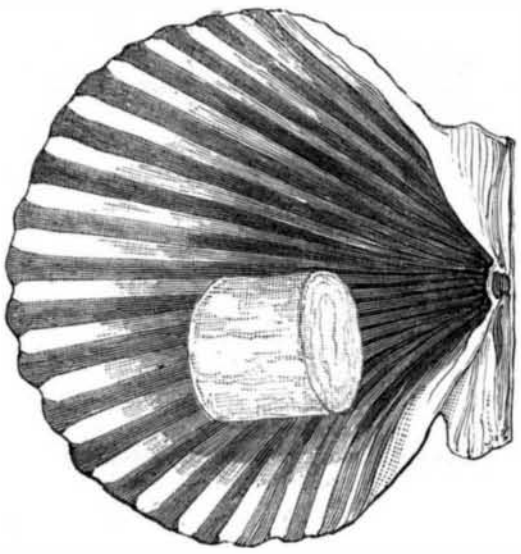

Fig. 2.—Showing Edible Muscle.

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.

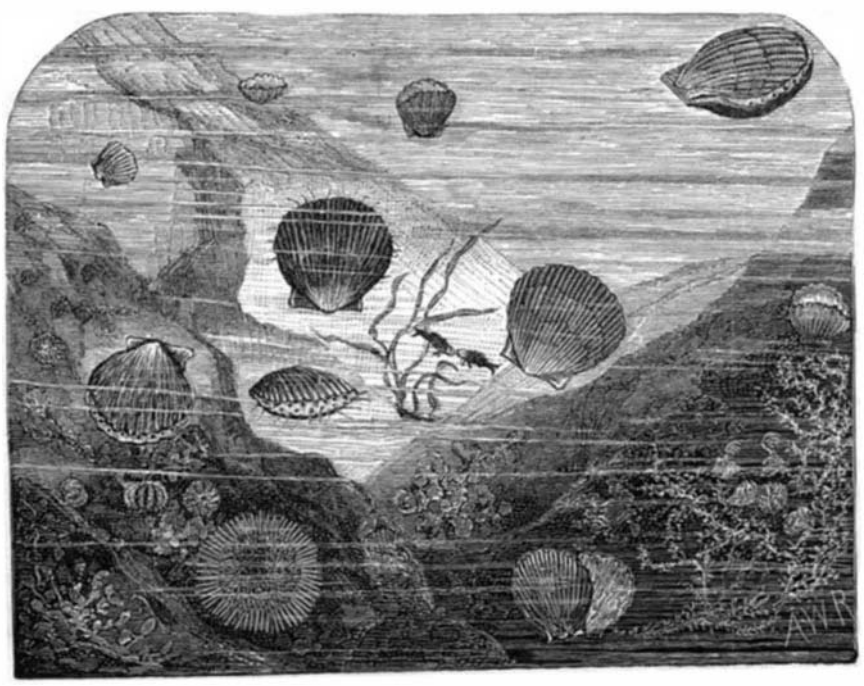

Fig. 1 —SCALLOPS DANCING.

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 8:30 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.

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