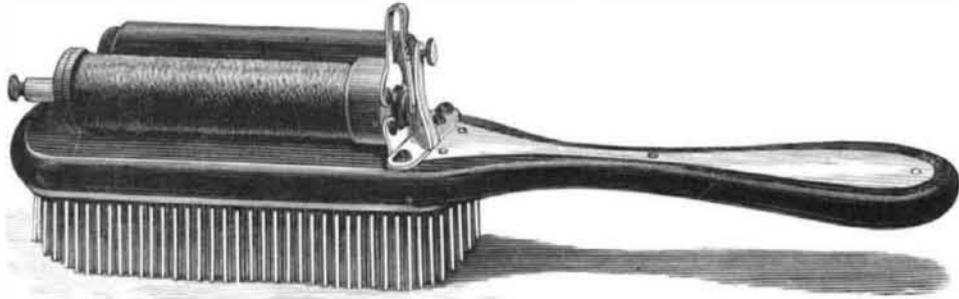


**AN ELECTRIC HAIR AND FLESH BRUSH.**

Upon the back of the brush, shown in the engraving, are placed a small battery and an induction coil. The ebonite cell is held between contact springs at each end, and is provided with a screw plug which is inserted in one end when the battery is not in use; but when in operation this is replaced by a plug carrying a bar of zinc. The current of electricity generated by the battery—the exciting fluid of which is bisulphate of mercury—is led to the induction coil, where the strength may be diminished or increased by a tube that slides in and out of the coil. One wire from the

**AN ELECTRIC HAIR AND FLESH BRUSH.**

coil leads to a metal plate attached to the back of the handle, and the other leads to a plate in contact with bristles, which are made of a suitable conducting material. When the brush is grasped in the hand, the current passes through the body to that point which is in contact with the bristles.

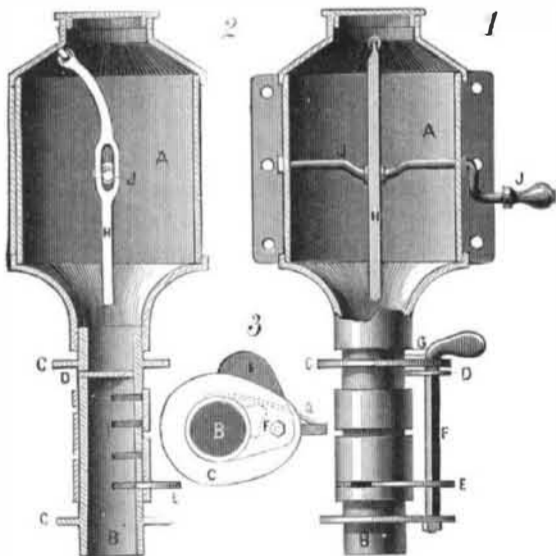
The many applications of this brush will be readily perceived; it may be used as a hair brush to relieve neuralgia, headache, and diseases of the scalp, and it may be applied to the body to alleviate suffering caused by rheumatism, paralysis, gout, etc. As it is an electric brush in fact as well as in name, it is applicable in all cases in which the ordinary medical battery is found serviceable.

Full particulars and catalogues may be obtained by addressing the Harbach Electric Department, 809 Filbert Street, Philadelphia, Pa.

**IMPROVED MEASURING CANISTER.**

The canister is provided with a conical top having a central collar, to which the cover is fitted. The rear side is formed with flanges, Fig. 1, for supporting the canister in position for use. The lower end is connected with a bell-mouthed spout, to the end of which is secured the measuring tube, B, having two flanges, C, in which the square shaft, F, is journaled. A transverse slot, D, cut half way through the tube near the upper flange, receives a valve attached to the shaft. In the side of the tube opposite this slot are formed other slots (as shown in Fig. 2) for receiving the valve, E, which is also attached to the shaft. This valve may be moved along on the shaft so as to enter any one of the slots, and it is so placed on the shaft that when the valve, D, is pushed in the tube the valve, E, will be removed, and *vice versa*. On the tube are sleeves provided with slots that may be adjusted so as to coincide with, or close, the slots in the tube. A spring, G, attached to the side of the tube bears against a lever on the upper end of the shaft, and tends to turn the shaft so as to force the valve, D, into the tube. A stirring bar, H, is pivoted to the upper part of the canister, and is connected to a crank shaft, J, as indicated in Fig. 1.

The canister may contain grain or other material, or it may be connected with a grain spout, when it will be employed for measuring rather than storing. The quantity of the material measured is determined by the space between

**CHURCH'S IMPROVED MEASURING CANISTER.**

the valves, the operation of which will be readily understood.

Further particulars may be obtained by addressing the inventor, Mr. George S. Church, or Mr. C. W. Thompson, P. O. box 130, Baldwin, Mich.

THE average wages of the French miner, including women and children, was in 1882 72 cents per day; in Belgium, 59 cents; and in Silesia, 52 cents. In certain parts of France, notably the basin of the Loire, they are about 82 cents a day.

**A Curious Catch.**

The writer a few days ago had occasion to set a trap, one of the round wire kind, to catch a mischievous large rat, which had been seen scampering around the cellar for some time.

Fruitless had been the attempt to catch the troublesome fellow, with a variety of tempting bait, when it occurred to the writer that by partially covering the trap with a cloth, possibly the cunning of the rat might be overcome. The experiment was tried, and a saucer of oatmeal from the breakfast table was placed within the trap. The next

morning what appeared to be a roll of rags was found inside the trap, which on opening it was found to conceal a large sized ground mole, who, on being shaken out of his covering, commenced eating the oatmeal, with apparent relish. How the mole found his way into

the cellar is an unsolved mystery, but that he was attracted into the trap by the meal is an indisputable fact, and that ground moles do eat cereal food can be no longer denied. The habits of the mole have interested both the naturalist and the gardener, and considerable discussion has arisen upon the subject of their diet, some contending that they live entirely upon worms, and others that their nourishment is derived solely from the roots of grass, while it is probably the fact that they partake of both, as they come in their way, and can grow fat upon either, for whoever saw an attenuated mole!

**IMPROVED VEHICLE TOP.**

The top is formed on bows, on which strips are secured, to which in turn the roof covering is fastened. On the front and rear surface of each side standard of the bows are secured plates, the edges of which project so as to form grooves. Guide rods pass up through the grooves and are bent parallel with the bows and top, and have their upper ends secured to strips attached longitudinally to the bottom edges of the bows; these strips are arranged in different horizontal planes, so that the rods on opposite sides of the top will not interfere with each other. The curtains are provided with linings and between the side edges of the curtains and the linings are held strips on which clips are secured. The rods pass through eyes formed by these clips. Between each two of these clips are secured other clips, which cover the outer edges of the strips. (This construction is clearly shown in Figs. 2 and 3.) Upon the bottom edge of each curtain is a stiff piece, in the middle of which is a handle by which the curtain is moved. A cross piece made of sheet metal is held between the curtains and linings at about the middle, and another at the top. When the curtains are moved upward, they slide on the curved parts of the rods and their inner ends overlap. The curtains are held in any desired position by the friction of the eyes on the rods.

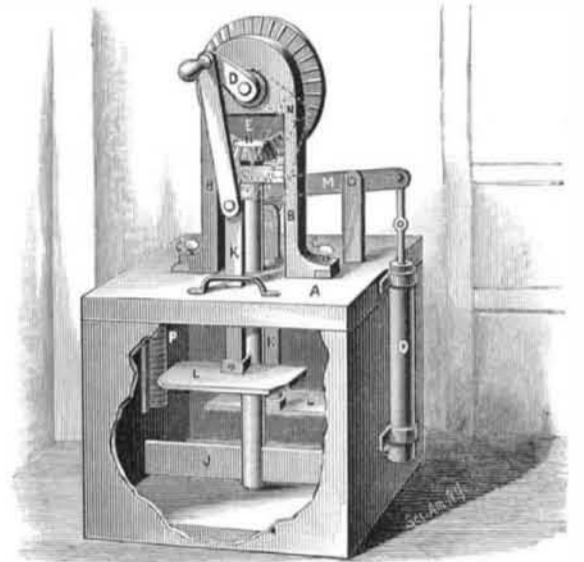
This invention has been lately patented by Mr. Thomas B. McCurdy, of Lancaster, Texas.

**The Phylloxera.**

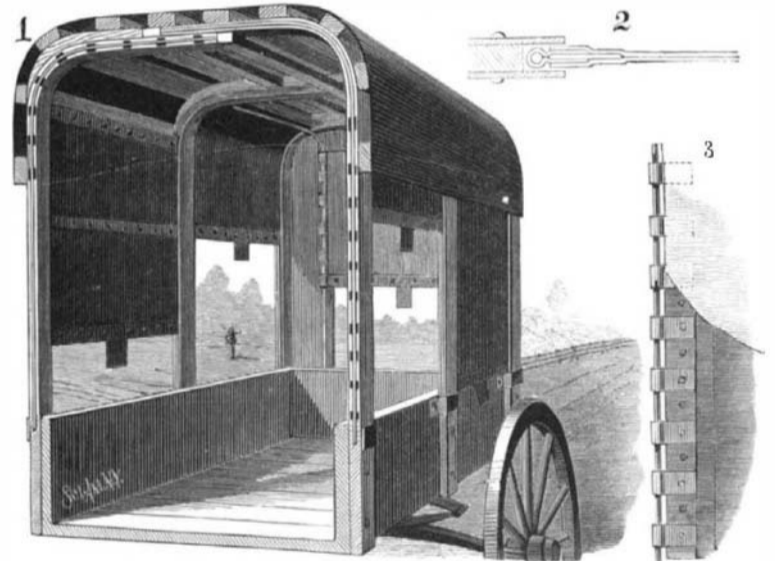
M. Balbiani, professor at the College de France, was commissioned a short time ago by the Minister of Agriculture to report upon the best mode of destroying the winter eggs of the phylloxera, as it has been found that it is in this way the progress of the parasite is very materially checked. M. Balbiani reports that three methods have been employed—the mechanical destruction of the eggs by barking the vines, boiling water, and rubbing the vines with preparations calculated to burn up the eggs. The first named of these methods has been tried in several vineyards near Bordeaux, the workmen rubbing the stocks with a chain steel glove, but the results are not satisfactory, as it is only the old wood which can be treated in this way. The use of boiling water would produce excellent results but for the fact that it is open more than any other process to carelessness in application, and that neutralizes all its good effects. The rubbing of the vines with a preparation composed of nine parts of coal tar to one of oil was open to the objection that the coal tar got so thick in cold weather that it could not be applied, and the cost of heating it again was considerable. Several vine growers tried to liquefy the mixture by adding 15 per cent of turpentine, but this, when applied, killed the vines altogether. M. Balbiani tried several fresh experiments, among others a mixture of oil, naphtha, quicklime, and water. This mixture has been tried upon a very large scale in the vineyards of the Lot-et-Garonne and the Loire-et-Cher, and it possesses, according to M. Balbiani, the double recommendation of being effectual and cheap, as the cost is under a franc for a hundred stocks.

**AN IMPROVED CHURN.**

On top of the cover of the cream box is a two-legged standard, B, detachably secured by two thumb-screws, C. In the top of the standard is journaled a shaft, on one end of which is mounted a beveled wheel, E, and on the other a crank, D, furnished with a handle. The beveled wheel engages with a pinion, H, mounted on the upper end of a vertical shaft journaled in the bottom and in the top of the box, and on the lower end of which are wings, J. On each side of the shaft, a bar, K, provided with a dasher, L, is held to reciprocate vertically. One of the bars is connected by a

**CLARK'S IMPROVED CHURN.**

rod to the crank, D, and the other is connected to a wrist pin on the beveled wheel. Joined to the wrist pin is a bar connected with the lever, M, to one end of which is attached the piston rod of the pump, O; the bottom of the cylinder of the pump communicates with the interior of the box. Secured on the inner surface of the box is a wire netting receptacle, P, for a thermometer. When the shaft is revolved, the beveled wheel revolves the pinion, H, and shaft, and the dashers are reciprocated. At the same time cold air is pumped into the box; the pump can be disconnected when the cream becomes cool enough. When the churn is to be emptied, the entire working mechanism and standard carrying it can be disconnected by loosening the screws, C.

**MCCURDY'S IMPROVED VEHICLE TOP.**

This invention has been patented by Mr. John W. Clark, of Banksville, Pa.

**Uses of the Passion Flower.**

According to Dr. George W. Winterburn, the therapeutic uses of the white passion flower resemble the bromides on one hand and gelsemium on the other. It is one of our best hypnotics, producing a quiet, pleasant sleep altogether different from the comatose stupor of morphia, and from which the patient may be aroused at any moment. It may be given in doses of two or three drops of the tincture or low dilution. Even in the worst form of sleeplessness, that associated with suicidal mania, this drug will produce quiet slumber, from which the patient awakens with clear mind and rational thoughts. In its control of convulsion, passiflora closely resembles gelsemium. It will be found of service in opisthotonos, trismus, and tetanus.—*Amer. Homoeopath.*

**Keep Out the Cold.**

Cracks in floors, around the mould board, or other parts of a room, may be neatly and permanently filled by thoroughly soaking newspapers in paste made of one pound of flour, three quarts of water, and a tablespoonful of alum, thoroughly boiled and mixed. The mixture will be about as thick as putty, and may be forced into the cracks with a case knife. It will harden like papier-mache.