

Felling Trees by Electricity.

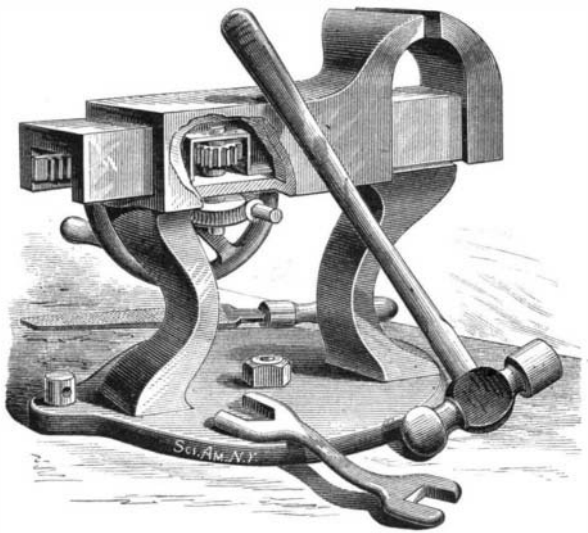
Some years ago a Doctor Robinson of this city obtained a patent through the agency of the SCIENTIFIC AMERICAN for Felling Trees by Electricity. Subsequently a description of the invention was published in this paper, soon after which the newspapers in this country and Europe teemed with the account of a gentleman in India having contrived an apparatus for felling trees in the same manner. Since these several years have elapsed we have heard nothing of the gentleman from India till a few days ago our papers have taken up the subject anew, and annexed is the account they give of the inventor's progress in developing his discovery.

The electric fluid in the form of lightning oftentimes proves itself a very efficient wood cutter, and it has occurred to some ingenious gentleman in India that artificial electricity may be so applied and controlled as to cut down trees a good deal faster than the clumsy ax or that American notion the chain saw. The two ends of the copper wires of a galvanic battery are connected with platinum wire, which of course instantly becomes red hot, and while in that state it is gently seesawed across the trunk of the trees to be felled. When arrangements were made for the experiment, it turned out that the thickness of the thickest platinum wire that could be got was only that of crochet cotton. It was at once seen that such a wire would be consumed before the tree was half severed from its trunk. However, the attempt was made. The burning wire performed its task very well as long as it lasted, but, as anticipated, the wire continually broke, and at length there was no wire left. There can be little doubt that, with a stronger battery and a thicker wire, the experiment would have been entirely successful. As it was, the tree was sawn one fifth through.

AN IMPROVED VISE.

The novel vise shown in the engraving was recently patented by Mr. William Starkey, of Pittsburg, Pa.

The fixed jaw is supported by two standards from the base piece, and has a square boxing or tube for receiving the slide of the movable jaw. This slide is hollow, and contains a rack which is engaged by a pinion on the short vertical

**STARKEY'S VISE.**

shaft, which is supported by the fixed jaw. At the lower end of the vertical shaft there is a worm wheel, that is engaged by a worm on the horizontal shaft on which is placed the hand wheel. By turning the hand wheel the vertical shaft is rotated and the movable jaw is drawn against the object to be clamped by the vise.

Culinary Uses for Leaves.

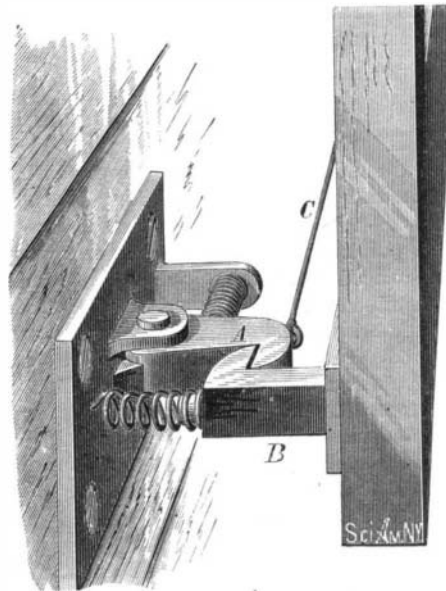
A writer in the London *Iron Trade Exchange*, calling attention to a neglected source of culinary flavors, says:

"With the exception of sweet and bitter herbs, grown chiefly for the purpose, and parsley, which is neither bitter nor sweet, but the most popular of all flavoring plants, comparatively few other leaves are used. Perhaps I ought also to except the sweet bay, which is popular in rice and other puddings, and certainly imparts one of the most pleasant and exquisite flavors; but, on the other hand, what a waste there is of the flavoring properties of peach, almond, and laurel leaves, so richly charged with the essence of bitter almonds, so much used in most kitchens! Of course such leaves must be used with caution, but so must the spirit as well. An infusion of these could readily be made, either green or dry, and a tea or table spoonful of the flavoring liquid used. One of the most useful and harmless of all leaves for flavoring is that of the common syringa. When cucumbers are scarce, these are a perfect substitute in salads or anything in which that flavor is desired. The taste is not only like that of cucumbers, but identical—a curious instance of the correlation of flavors in widely different families. Again, the young leaves of cucumbers have a striking likeness in the way of flavor to that of the fruit. The same may be affirmed of carrot tops, while in most gardens there is a prodigious waste of celery flavor in the sacrifice of the external leaves and their partially blanched footstalks. Scores of celery are cut up into soup, when the outsides would flavor it equally well or better. The young leaves of gooseberries added to bottled fruit give a fresher flavor and a greener color to pies and tarts. The leaves of the flowering currant give a sort of intermediate flavor between black currants and red. Orange, citron, and lemon leaves impart a flavoring equal to that of the fruit and rind combined,

and somewhat different from both. A few leaves added to pies, or boiled in the milk used to bake with rice, or formed into crusts or paste impart an admirable and almost inimitable bouquet. In short, leaves are not half so much used for seasoning purposes as they might be."

NEW SHUTTER FASTENER.

We give herewith an engraving of a new shutter fastener, recently patented by Mr. P. F. Fernandez, of San Juan, Porto Rico, West Indies. This fastener is designed for hold-

**IMPROVED SHUTTER FASTENER.**

ing doors or window shutters in position when open, to prevent them from closing or swinging in the wind.

To the wall is secured a plate to which is pivoted the spring-acted hook, A, and upon the shutter in the proper position for engaging the hook, A, there is a rigid hook, B. A coil spring is attached to the plate that supports the hook, A, and when the shutter is open is engaged by a boss formed on the end of the hook, B. By this means the hook, B, is pressed forward into close contact with hook, A, thereby preventing all jarring and rattling.

The hook, A, is provided with an eye for receiving the cord, C, which extends to the window casing and is within easy reach, so that when it is desired to close the shutter the hook, A, may be readily disengaged from the hook, B, by simply pulling the cord.

Further information may be obtained by addressing the inventor as above.

AN IMPROVED GARDEN SPRINKLER.

A novel garden sprinkler, which may be carried on the back, is shown in the accompanying engraving. The cylindrical vessel has a removable cover, and contains a perforated plunger which is operated by a hand lever from without. The cylindrical vessel is provided with shoulder straps, and it has two sprinkling nozzles connected with it by flexible tubes.

This sprinkler is especially designed for applying insect-destroying poison to plants. The operator, as he goes

**HODEL & STAUBER'S GARDEN SPRINKLER.**

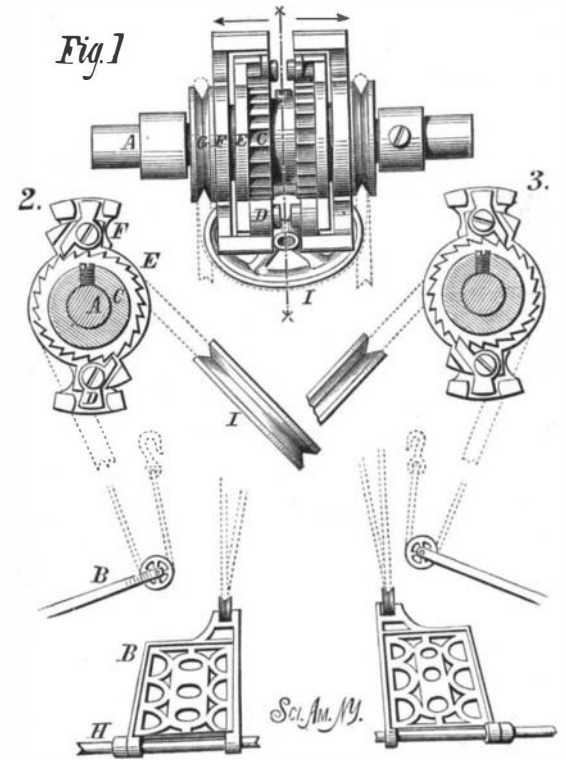
through the field or garden, takes one nozzle in each hand and distributes the liquid upon the plants. From time to time the liquid will be agitated by moving the perforated plunger.

This invention was recently patented by Adolf Hodel, of Jefferson, and F. A. Stauber, of Chicago, Ill.

A NEW FOOT POWER.

In our issue of November 9 we illustrated and described a sewing machine having W. F. Lane's improved foot power applied. We give herewith views of the foot power in detail, Fig. 1 being a side elevation, and Figs. 2 and 3 sectional views. The device is designed for application to any light machinery that can be propelled by foot power. A is the shaft to which motion is to be imparted by the treadles, B, the latter being pivoted to oscillate on the shaft, H. Two ratchet wheels, C, are secured to the shaft, A, and are each worked by pawls, D, which are pivoted to a carrier, E, which turns loosely on the shaft. The pawls are in the form of an elbow lever, and the movement of their tooth ends is limited by lugs or shoulders on the carrier, E. The outer ends of the pawls are received between lugs that project from the plate, F, which turns loosely on the shaft, A, and has attached to it the rope pulley, G. When the plate, F, is turned in one direction the pawls are raised and ride loosely over the teeth, but when the plate turns in the other direction the pawls engage the ratchet teeth and carry them and also the shaft, A. A guide pulley, I, is pivoted below the shaft, A, with its axis at right angles to the shaft.

The motion from the alternately-oscillated treadles, B, is transmitted to the pulleys, G, by means of a rope (shown in dotted lines), both ends of which are fastened by hooks to some fixed point. This rope runs from one of the hooks down under a pulley pivoted in the toe of one of the treadles, thence around one of the pulleys, G, thence around the pulley, I, over the other pulley, G, and downward around the pulley in the other treadle, and upward to the second fixed hook. The depression of one of the treadles causes the

**LANE'S FOOT POWER.**

shaft to rotate, and also lifts the other treadle into position to be operated.

For further information address Wm. F. Lane, Elgin, Ill.

New Inventions.

Mr. Samuel Heaton, of Cedar Rapids, Iowa, has patented an improved Iron Fence Post, which is particularly adapted for wire fences. It is formed of a slotted iron bar, constituting the post proper, and a triangular brace, which is so connected with said bar that it may be easily adjusted at different angles, corresponding to the undulation or unevenness of the ground surface where the post is used.

Mr. Thomas S. Alexander, of Meriden, Conn., has patented an improved Drawer Pull, which is neat, strong, and durable, and is less expensive than when made in the usual way.

An improved Earth Scraper has been patented by Mr. Benjamin Slusser, of Sidney, Ohio. This is an improvement in that class of earth scrapers which are arranged to revolve for the purpose of dumping the load, and during the intervals, or while being filled, are locked in rigid position.

An improvement in Wagon Bodies has been patented by Mr. James H. Paschal, of Camden, Ark. This invention consists, essentially, in a frame provided with spurs projecting therefrom for engagement with the bales to prevent them from slipping, and the combination therewith of removable extension side and end pieces, for enabling the wagon to be used for other purposes when not employed for hauling cotton bales; there is an extension of the frame forming a feed trough for the horses employed to draw the vehicle.

An improved Scraper has been patented by Mr. George Eiteman, of Round Grove, Ill. This is a double-ended scraper hung at its center on a rod connected to the handle arms, whereby either end of the scraper may be used. It has catches to prevent the scraper from revolving backward, and spring actuated dogs on the handle frame to retain the scraper in position and prevent it from turning over until released.