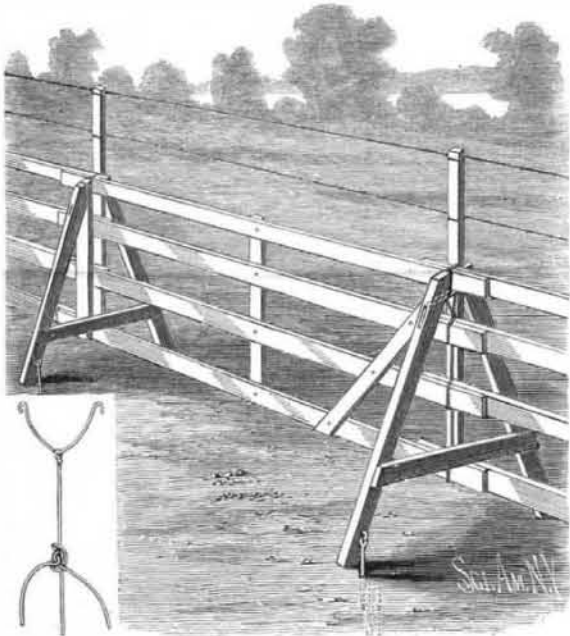


## AN IMPROVED FENCE.

The invention herewith illustrated shows a fence that is calculated to stand firmly in heavy winds, and one that can be made, set up, and removed quickly at a reasonable cost. The side braces are firmly held by stakes driven into the ground without digging, these being connected with the braces by stout galvanized wires, and the braces firmly holding uprights which press against the boards or rails of the fence. Where these opposite braces meet they are held by a metal tie



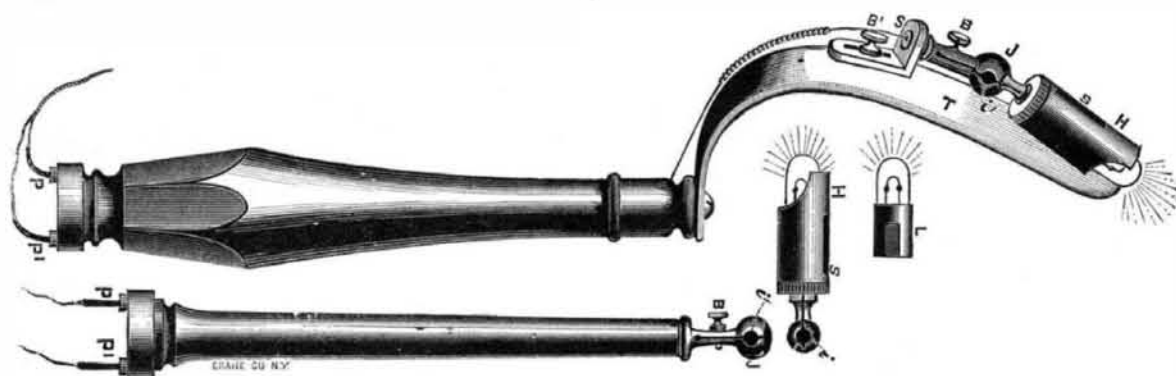
READ'S IMPROVED FENCE.

bar or rod, which also supports the top rail and from which depend hangers supporting the lower rails. These hangers consist of strong wire bent upon itself and formed with hooks and loops, with a button over the bends where the rest is formed, and thus binding together the end portions of the rails. The uprights are also extended a sufficient distance above the top rail to afford support for one or more wires, and thus increase the height of the fence as may be desired, these wires being either barbed or plain.

This invention has been patented by Mr. John W. Read. Particulars can be had from Read Bros., of West Salem, Ohio.

## AN ELECTRIC LARYNGOSCOPE.

The accompanying illustration, showing one of the most recent applications of electricity in the perfection of instruments for the use of surgeons, physicians, and



MEYER'S ELECTRIC LARYNGOSCOPE.

dentists, is the invention of Mr. Curt W. Meyer, of 357 Fourth Avenue, New York city. It is an instrument to illuminate and assist in exploring the cavity into which the nose and mouth enter, at the base of the tongue, T being a tongue depressor, with an insulating handle, through which conducting wires are passed to connect with battery cords at P P'. The inventor has also constructed a special battery for use with this laryngoscope. An electric incandescent lamp, L, is mounted and set in a shield tube, H (which is a non-conductor of heat), with a double conducting ball-joint movement, J, and an adjustable slide, S, which holds the lamp, and which is held firm to the tongue depressor by a set screw, B', the lamp being set firm in any desired position by the binding screw, B. The lamp can be brought in broken circuit at z' by slightly turning the lamp tube, H, and the latter, with its ball-joint, can be detached from the tongue depressor and set in a different handle; or it may be removed from the shield tube by pushing it out through the slot, S. Each of the battery cords contains twenty-one No. 40 wires, is two yards in length, and well insulated. For diagnosing and the examination of interior cavities this instrument has advantages which commend it to the attention of the medical profession.

THE Board of Management of the new American Exposition to be opened this winter at New Orleans has invited bids for an electric railroad in the grounds.

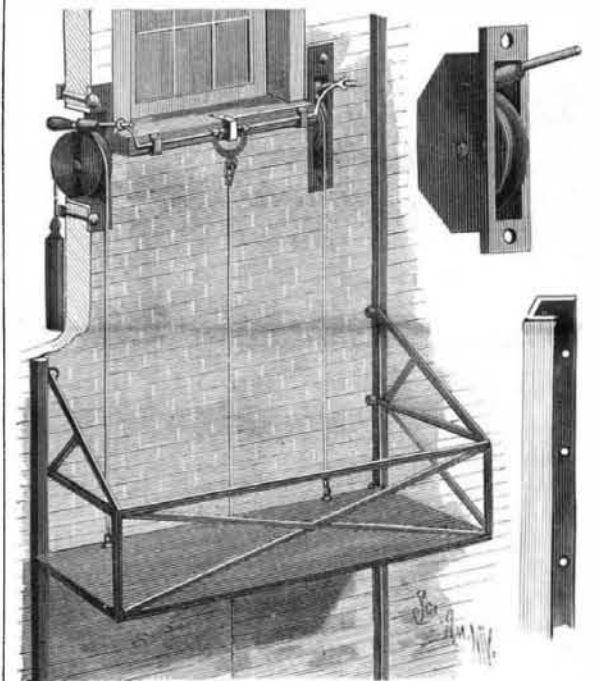
## The Mississippi Reservoir System.

A special dispatch to the *Chicago Tribune* from St. Paul, Minn., says: The Government engineers have made the following report on the reservoir system: The reservoirs at Leech Lake and Lake Winnebigoishish were opened August 1 with a large discharge. Pokegama reservoir, the receiving reservoir, 100 miles by water below the upper reservoir and 398 miles by water above St. Paul, was opened August 15 with a discharge of about 3,000 cubic feet of water per second. The rise in the Mississippi River at different points since, and resulting from the discharge from the reservoir, was, September 1, at Grand Rapids, four miles below Pokegama, five feet; Aitken, 169 miles below Pokegama, two and one-half feet; Crow Wing, 236 miles below Pokegama, two feet; Sauk Rapids, 295 miles below Pokegama, two feet; and up to the 7th the river was still rising at all points heard from since the 1st of September.

The river at St. Paul fell from August 1 to August 23 one foot and three inches. Since then the St. Paul gauge shows an average stage of three feet up to September 7. As there was no rainfall of any importance from August 1, the river must have continued falling at about the same rate as its tributaries, and probably at not far from the same proportion as from the 1st to the 23d of August, had it not been for supplies from these reservoirs. As closely as can be estimated, the reservoirs are furnishing not far from one foot of water at St. Paul. These reservoirs only have been completed: Leech Lake, Lake Winnebigoishish, and Pokegama Falls (a distributing reservoir with but little holding capacity). The first two have a capacity jointly of about 60,000,000,000 cubic feet when full. The fourth reservoir, at Pine River, will be completed this fall. It has a holding capacity of about 7,000,000,000 cubic feet, and is about 220 miles by water above St. Paul. The accumulation of water in the upper reservoirs, Leech Lake and Lake Winnebigoishish, in 1885 has been very large, between 35,000,000,000 and 40,000,000,000 cubic feet.

A much larger discharge could have been made, but the amount was considered large for the experimental discharge this season. In regard to the diminished rise in the river as the distance from point of discharge increases, it must be remembered that all sloughs, rivers, lakes, etc., adjunct to the river must be raised to the same height as the main river before a full effect and benefit can be received. It is expected that the total rise at Crow Wing and Sauk Rapids will not be far from four feet when the full effect is reached. It is as yet impossible to say what the full increase at St. Paul will be. Something between one and one and a half feet can, however, be confidently expected. While prevention of the river falling is less noticeable than its rise, yet the real effect is the same so far as navigation is concerned. As a result, therefore, of what has

ends of which are weighted, and which are provided with brake shoes. These arms are placed above the pulleys, so that when their outer ends are lowered the shoes will bear upon the pulleys, and serve to check the speed of their revolution. The outer ends of the brake arms are connected with the crossbar, attached to the middle of which is a rope sufficiently long to reach to the ground, in order that the brakes may be operated at any point during the descent of the car.



DAVIS' FIRE ESCAPE.

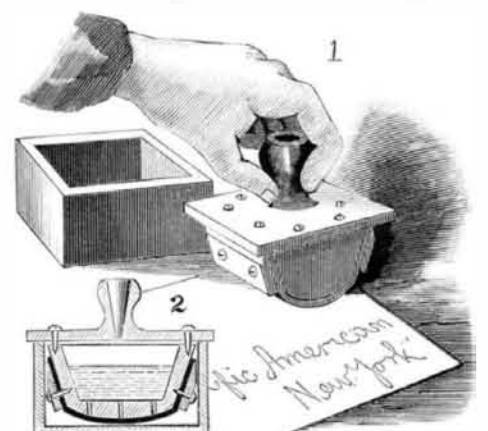
As will be seen, this fire escape, the invention of Mr. Daniel F. Davis, of 1029 Washington St., Easton, Pa., is simple in construction, and may be easily and quickly operated.

## Dry Distillation of Wood.

It appears from the author's experiments that the yield of crude pyroligneous acid, tar, charcoal, and gas is almost the same with the most different woods. But the richness of the acid waters in acetic acid and consequently the yield of dehydrated acid vary greatly. In this respect the wood of coniferous trees is the least valuable. The wood of the trunk furnishes more acid than that of the branches. The wood yields more acid than the bark, and sound wood more than dead wood. Rapid calcination yields more gas at the expense of the condensed products and of the charcoal; it yields also the weakest acid waters, and the charcoal is more hygroscopic than that furnished by a gradual action.—M. Senff.

## STAMP MOISTENER.

The moistener is made with a piece of wool, felt, or other fabric that will absorb water and give it off under pressure, secured to the bottom of the water reservoir by end cleats. The reservoir is made with a rounded bottom, on which the fabric rests, and with inclined ends. The sectional view, Fig. 2, clearly shows the construction. Through the bottom of the reservoir are holes, through which water can pass to the fabric; the reservoir is filled through a hole in the handle attached to the cover, which is held by screws, a packing being placed between the cover and reservoir top. When not in use, the moistener is placed in a watertight case, shown in Fig. 1. To use the moistener, it is grasped by the handle, and the fabric pressed upon the surface which is to receive the stamp. The stamp is then placed on the moistened surface, and a blotter pressed upon it to affix it to the package or envelope. The device is simple and inexpensive, and obviates the neces-



WHARMBY'S STAMP MOISTENER.

sity of moistening the stamps by the tongue in the usual way, and also the rubbing the paper surface, as with a sponge.

This invention has been patented by Mr. Thomas W. Wharmby, of 19 Mandrake Street, Cleveland, O.

## FIRE ESCAPE.

Secured vertically to the side of the building are tracks upon which a car travels upon and down. The car is rectangular in form, and is composed of longitudinal bars connected at their ends by bars whose inner ends project and carry rollers which slide upon the track, the outer wings of the track preventing the detachment of the rollers. The longitudinal and cross bars are connected and braced by diagonal bars. The form of the rails is clearly shown in the lower right hand view. Extending inwardly from the outer corners of the car are rods set at an incline; and which carry rollers working upon the tracks. Secured to the wall of the building adjacent to the lower sill of the window are brackets in which pulleys are journaled. Ropes or chains, secured at one end to the inner side of the car, pass over the pulleys and have weights fastened to their other ends. By this arrangement, when a load is removed from a car the same will, through the agency of the weights, ascend to the window, so that another load of passengers can be lowered. Secured to the sill of the window are brackets in which works a bar having a slight vertical movement. Pivoted in the pulley brackets are brake arms, the inner