Fireman's and Builder's Elevator.

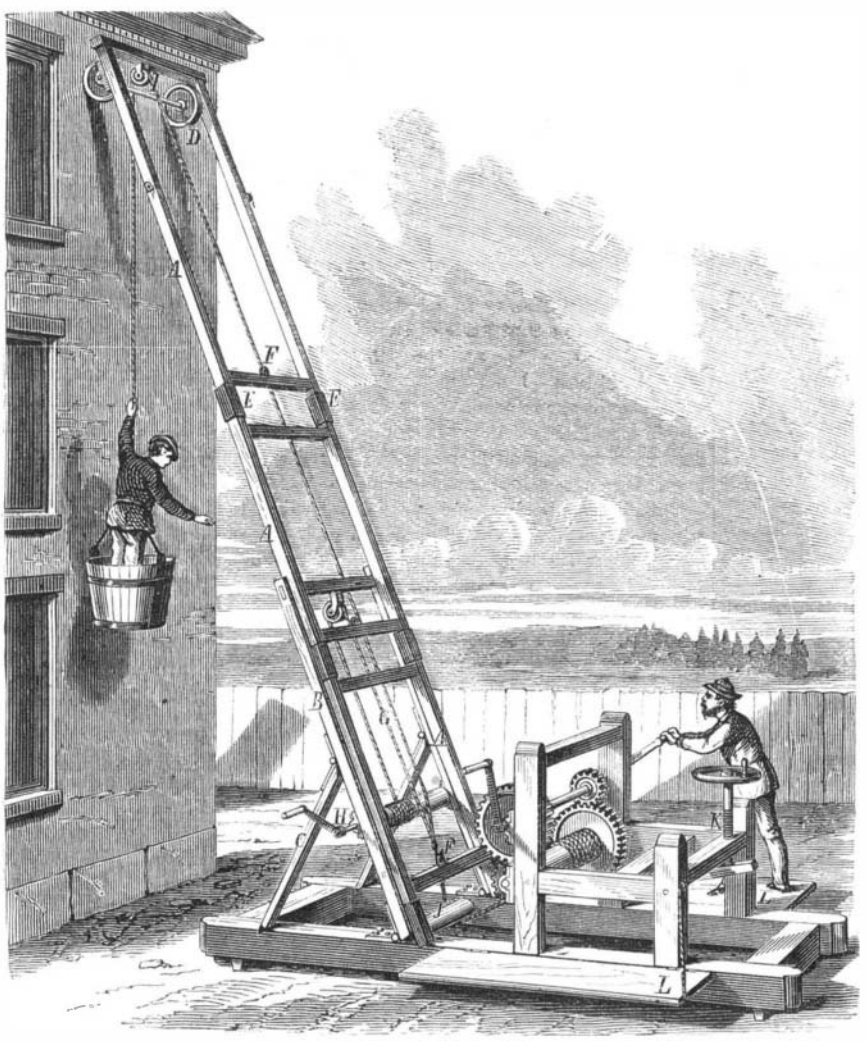
Our engraving illustrates a fireman's and builder's elevator, which can either be placed upon the ground, as shown, or attached to a truck to be drawn about by horses, and by which an elevation of any hight can be easily, rapidly, and safely attained.

In the engraving, A represents the different adjustable sections of the elevating frame, and B a fixed section which is hinged to the frame of the derrick. To the section, B, are pivoted braces, C, the lower ends of which are wedge pointed, to engage with the timber of the derrick frame and hold it at any angle during the elevation. The upper section, A, has attached to its upper end two wheels, D, as shown, which, during the extension of the frame, roll up along the side of the building. The sections, A, are joined, as shown, by metallic sleeves, E, the upper ends of each section entering the sleeves which are attached to the lower ends of the next section, and so on, as many sections being used as may be needed to secure the required elevation.

To the lower crossbar of each section is attached an eye, F, which is engaged by a hook attached to the cord, G, during the extension of the elevating frame. The cord, G, is wound up by the windlass, H. Thus suppose it was required to extend the frame from the position shown in the engraving. The windlass, H, being turned, the lower section, A, would be raised, sliding in ways on the section, B, till its lower ends reached the position now occupied by the lower ends of the second section, at the same time carrying upward the superposed sections. When this had been done another section would be inserted, which would hold the upper ones from descending.

To the upper section is attached a sheave, I, over which the rope from the elevating bucket passes, thence downward and under a roller, J, attached to the derrick frame, and thence to the drum of the derrick, which is operated in the usual way. A hand screw, K, operates a lever friction brake, to hold the bucket and its load at any required elevation. Folding platforms, L, afford a standing place for the operator on either side of the derrick, whether the latter be mounted on wheels or not.

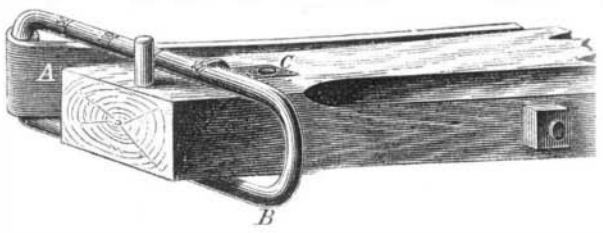
This invention was patented through the Scientific American Patent Agency, Feb. 13, 1872, by Andrew M. Patrick, of Long Lane, Mo , who may be addressed for further information. Patents are also pending, through the same source, in foreign countries.



PATRICK'S FIREMAN'S AND BUILDER'S ELEVATOR.

GIBBS' WHIFFLETREE.

Our engraving shows a portion of an improved whiffletree, designed to subserve two useful ends. It is intended, first, to give greater elasticity to the whiffletree, so that by the sudden starting of the team no portion of the harness



shall be broken by the shock; and, second, to supply a means whereby the draft applied, to propelling vehicles, plows, mowing machines, etc., will be indicated with sufficient accuracy for comparison.

The improvement consists in applying to the back side of the ends of the whiffletree a strong strap spring, A. The traces are to be hooked to the graduated links, B. A pointer, C, in connection with the graduations on the link indicates the pressure of the draft in pounds.

This invention, with or without the graduations on the link and the pointer, would be an excellent thing for street cars, and would save much expense in repairs, besides making it much easier for the horses to start the cars. For general use, the improvement has also advantages that will be obvious to the reader. By its use, farmers will be able to see whether the draft of their reapers has increased unduly by the friction or binding of parts, and to make the proper adjustment in time to relieve their horses.

The spring may be composed of one or more leaves, as may be required; and, while not very expensive, is a valuable addition to the whiffletree where heavy work is required.

Messrs. George Gibbs and William Gibbs, of Canton, Ohio, are the inventors and joint patentees.

The Dandelion or Taraxacum.

Taraxacum roots are used in a variety of ways in India; one useful form is that of a paste, which is made by pounding the fresh roots, putting the mass into tins or jars, and gently baking or heating in an oven; when cool, the paste is ready for use and can be kept for a long time. To prepare dandelion coffee, the roots are washed, dried in the sun and cut up into small pieces, after which they are roasted in a similar manner to true coffee; they are then ground, and to every nine ounces of coffee one ounce of pounded dandelion root may be added; these proportions make an excellent and useful beverage. The use of this coffee in India has been much recommended.

Lieutenant Pegson, in a communication to the Agri horticultural Society of India, advocating the more general cultivation and use of the dandelion, says: "Medical men admit the value of this preparation, and I know several gentlemen in India who are, by their own admission, kept alive by the daily use of taraxacum coffee. It is fairly entitled to be called a specific for the cure of torpid liver, a complaint from which the majority of Europeans suffer; the fact being made known when they proceed to a cool or hill climate and shiver and shake with cold while the thermometer is at 62° Fah. only. The sallow complexion of such men, women and children, their languid movements and their enjoyment of heat, all alike proclaim that they are suffering from sluggish action of the liver. The conserve of taraxacum may be made into sirup for use. Horses and valuable dogs, sheep and poultry, all suffer in India from disease of the liver. A bolus of taraxacum conserve to a horse, and a pill thereof to a fowl, would be most beneficial and act as a curative agent."

WINN'S SHAMPOOING APPARATUS.

Of all the luxuries vouchsafed, in this civilized age, to heated, weary, head-achy mortals, a vigorous, cooling, cleansing shampoo deserves to take a place in the front rank. How delightfully it soothes the irritable nerves! What a delicious sense of coolness steals through the blood, till hands, limbs, and even the tired hot feet share it! How pleasant the manipulations of the accomplished operator! It is a luxury so grateful that it has almost seemed to reach the acmé of perfection, yet Mr. Mark L Winn, of this city, has

won the fame of having perfected what seemed before perfect. Instead of now sitting with elbows upon knees and nose over a washbasin, while the cooling jets descend upon our willing pates, we discover that we need not even keep awake during the process, unless we wish to do so. We may almost recline, with elevated feet, on chairs cunningly devised and cushioned soft, and without the exertion of a muscle, receive passively that which has heretofore required some effort.

This desirable result is accomplished by, among other devices, a helmet of peculiar construction, which is supported by a suitable adjustable standard and bracket attached to the chair. In addition to the helmet, a safety trough and collar is employed to protect the person from the dripping, a flexible pipe, leading therefrom, carrying off the water which the trough collects.

The helmet has an expansible and adjustable bottom, with a sort of rubber packing, which fits the head. The trough also has a rubber collar, which fits the neck water tight.

A detachable sprinkler is employed to convey water to the head. A cushion or platform extends to the rear to support long and thick hair, like that of ladies, which, of late years, has grown to an unprecedented extent, and is at present generally very thick, especially at the back of the head.

A dryer, composed of a hollow sheet metal vessel, is used, and is provided with a cushioned metallic plate, upon which the hair is spread to dry, when the plate is heated by an alcohol lamp. This is considered a requisite for long and thick hair, which is slow in drying and is apt to become musty unless the moisture is thoroughly removed from it. The cushion alluded to is of non-conducting material, and is placed at the back of the head to protect the latter from the heat.

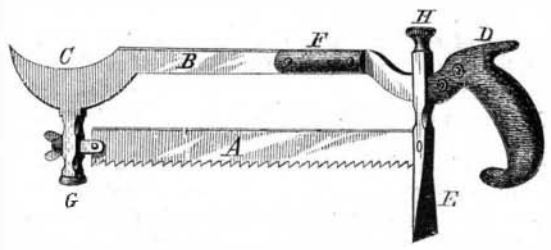
The arrangement of parts is such that any of these appliances may be attached or detached at will, as the circumstances of the case require. Thus, totally bald headed individuals will not require the dryer, which, of course, will not be used in their case. Young ladies (all ladies are young, we believe) will need a good deal of drying, and even chronically dry individuals of the male gender, whose hair happens to be luxuriant, may need the dryer after the use of the helmet.

At all events, all sorts of heads may find their requirements fully met in this invention, and the business of shampooing will doubtless be revolutionized by it.

AN IMPROVED GRAFTING TOOL.

The season for grafting being now at hand, many of our readers will inspect with interest the accompanying engraving of a convenient grafting tool, the invention of Mr. John Maddy, of Clearfield, Pa.

The invention consists in the combination of a hack saw, A, a splitting knife, C, and a wedge, E. The instrument is used by taking hold of the handle, D, in the usual way to saw off the stock. The handle, F, is used to place the knife, C, properly, and the head, G, is struck to split the stock. The



stock being split the instrument is reversed, and the wedge is driven by striking the head, H. Thus all the tools used for grafting, except the mallet, are combined in a single tool, a great convenience where trees are to be climbed in the performance of this kind of work.

AN old gentleman, traveling on the railway a few days ago discovered hanging on the side of the car what he took to be a time piece, but which was nothing more or less than a thermometer arranged with a dial and hands like a clock to easily denote the temperature of the coach. The old man eyed it very closely, finally adjusted his spectacles, then took out an old fashioned bull's eye watch, compared time, and with his key made the necessary correction. He said he expected to be on the railroad for several days, and he wanted the car time. We think he will have a lively time of it, if he attempts to keep his watch with the variable temperature of a railroad car.

CURLED SOAP ROOT.—The curling of "soap root" as a substitute for hair for mattrasses is quite an industry in California. It employs a capital of nearly $50,000, with sixty men, and machinery and engine of 40 horse power. The value of the product is nearly $100,000 annually, and is steadily increasing. It grows in unlimited quantities in all the foot hill districts of the State.

DETECTION OF AMMONIA.—*Lex* announces a new process for the detection of ammonia, not less sensitive than the Nessler test. The suspected liquid is mixed with phenol, and hypochlorite of lime is added. The ammonia shows itself by a green color, more or less intense, according to quantity.