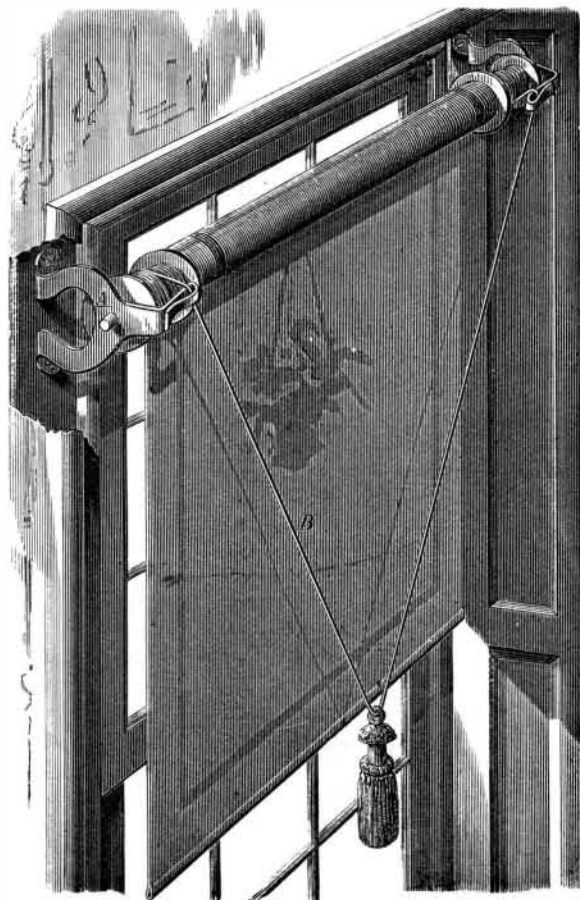


POSPISIL'S CURTAIN FIXTURE.

We illustrate in the annexed engraving an improved curtain fixture, by means of which the curtain is retained at any height at which it may be adjusted, and is raised or lowered by means of a single cord. The ends of the roller are held in spring brackets, A, and near such extremities are formed pulleys, about which a cord, B, is wound in opposite directions. The bight of the cord hangs down in rear of the shade and carries a heavy tassel by passing through an eye on the same, said tassel thus serving as a counterpoise for the weight of the curtain. It will be clear from the engraving that, when the cord on one side is pulled, the roller will be rotated in one direction, and that the same will be turned in the opposite



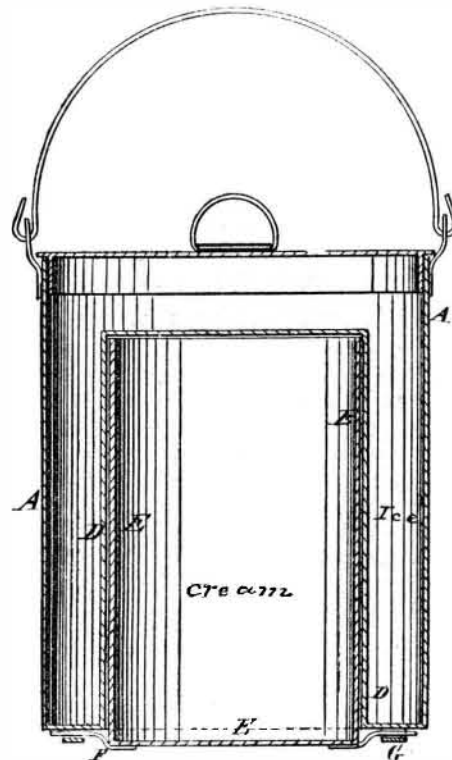
way when the cord on the other side of the tassel is drawn down. The shade is thus easily rolled or unrolled.

The fastenings, A, of the roller are provided with loops, which serve as guides for the cord. The device is simple and easily operated, and doubtless will be found an efficient substitute for the old-fashioned endless cord and single pulley.

Patent allowed through the Scientific American Patent Agency. For further particulars, relative to sale of exclusive right for the United States or for State rights, address the inventor, Mr. Rudolph J. Pospisil, 757 Allport street, Chicago, Ill.

A JUVENILE INVENTOR.

A bright eyed manly looking youngster made his appearance in our office, not long since, with a tin model under his arm, and announced to us the fact that he was an inventor and wanted a patent. We inquired with interest as to the nature of his production. He promptly replied that it was an ice cream carrier, intended to transport that delicacy from the



Wyman's Ice Cream Carrier.

place of sale to wherever it was to be eaten, without danger of melting. After examining his model, we were curious to know how so young a lad came to invent such an article, and this elicited his story. He was a district telegraph messenger, he said, one of those blue and red uniformed boys whom any one who has an instrument in his house can summon at

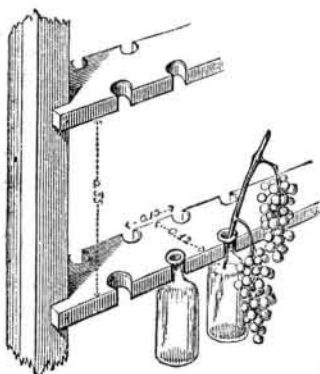
any hour, night or day, to go on errands. It appears that a gentleman, desiring to indulge in ice cream on a hot evening, called our young friend and despatched him for a supply. The weather was warm, and doubtless the hands of the boy likewise, and so, despite the paper which enveloped the cream, by the time it reached its owner it was in a sadly demoralized condition. The gentleman, who had been luxuriating in anticipation of the frigid repast, forgetting the hot weather, was very exasperated, and vented his wrath on the messenger by a tremendous scolding. The unfortunate youngster felt the sting of the upbraiding, which he thought was unjust, for he said the fault was not his; and he set to work to invent something which would, on another and similar occasion, prevent his incurring another "blowing-up." The result was the ice cream carrier, for which a patent has now been granted. The device consists of an annular pail, having a cover and bail. The inner wall is not so high as the outer one, and is covered over. In this receptacle the ice and salt are placed. The ice cream vessel is a simple cylinder which is inside the annular pail, and which is held therein by clips on the bottom, as shown in the engraving.

The device is practical, and we have no doubt will answer its purpose very nicely. The inventor is Master Henry W. Wyman, of this city.

PRESERVING GRAPES.

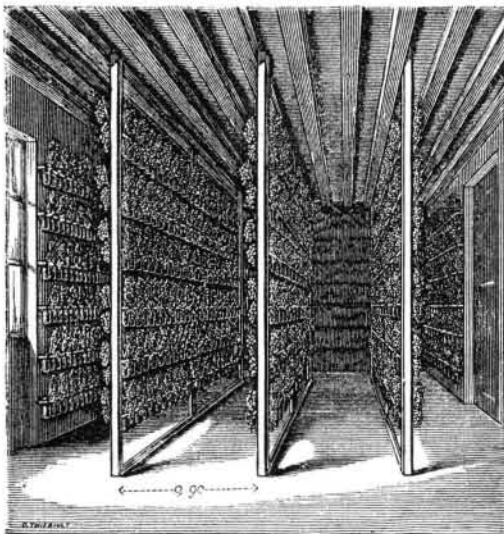
The preservation of grapes for winter and spring use is easily done; and by a little care and at moderate outlay, grape growers may keep our markets well supplied with fruit, in good condition for months after the last bunch has been stripped from the vines. The system pursued at Ferrières, France, the princely domain of Baron Rothschild, head of the French branch of that celebrated family, is as follows: To preserve the fruit on a fresh stalk (*à rafle fraîche*) the grapes are cut with a portion of the branch attached, and the branch is put into a small bottle filled with water (see Fig. 1). These

Fig. 1.



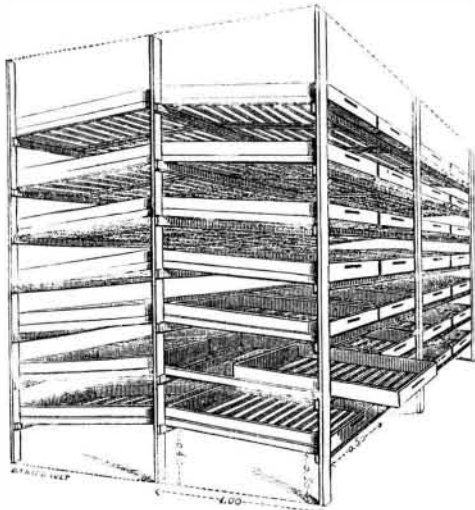
bottles are then arranged in racks, being placed just so far apart that the clusters do not touch. They should be looked at occasionally, and the bottles filled with water. Some growers recommend putting a little powdered charcoal into each bottle of water. The racks are arranged in a dark room (see Fig. 2), properly ventilated.

Fig. 2.



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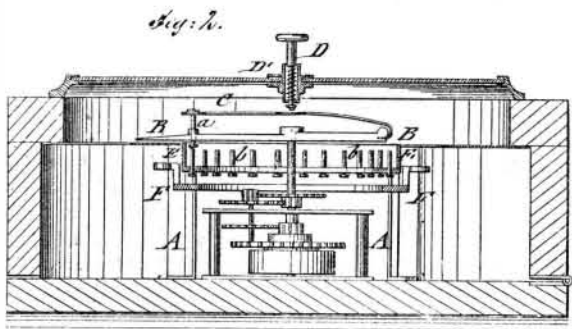
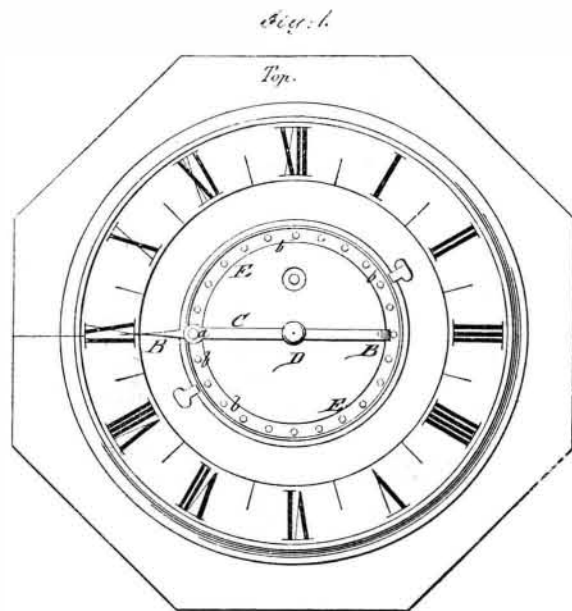
Fig. 3.



Large quantities of grapes are preserved in France on the dry stalks (*à rafle sèche*). The bunches are put away on trays made of slips of wood (see Fig. 3), placed a little asunder for the circulation of air. Fern leaves or barley straw is laid in the trays, and the bunches are laid away when the first frosts arrive. They require very careful watching, and every single berry that shows symptoms of decay, from whatever cause, must be carefully removed with a pair of scissors.

IMPROVED WATCHMAN'S TIME CHECK.

Messrs. T. D. Osborne and W. W. Le Grande, of Louisville, Ky., have patented (September 21, 1875), through the Scientific American Patent Agency, a new and simple form of detector, for attachment to an office or other clock, by which it may readily be discovered whether a watchman does or does not faithfully perform his duties. We give an illustration of the device herewith, Fig. 1 being a view of the front of the clock, and Fig. 2 a section. The glass front of the time piece has a central sleeve for a sliding spring pin and button, D. This pin acts upon a spring, C, Fig. 2, that



is applied to one end of one of the clock hands, the other end carrying a pin, a, which passes through the eye of the hand to be brought successively in contact with a series of sliding pins, b, on a guide ring, E, attached to the clock frame. The position and number of the pins correspond to the periods of time at which the watchman is compelled to register, the spring pin of the hand allowing the pressing back of the pins only when the hand indicates the proper time. Any one of the pins not depressed shows at a glance the neglect of the watchman. A sliding base ring, F, serves to restore the pins to their normal position.

The Components of Coal.

Dr. Hofmann, of the University of Berlin, furnishes, in *Percy's Metallurgy*, the following list of the compounds generated by the destructive distillation of coal, the new atomic weights being used

Hydrogen..... H	Ethine (acetylene).... C ₂ H ₂
Water H ₂ O	Benzol..... C ₆ H ₆
Carbonic oxide... CO	Toluol..... C ₇ H ₈
Carbonic acid..... CO ₂	Xylol..... C ₈ H ₁₀
Sulphurous acid.... SO ₂	Cumol..... C ₈ H ₁₂
Hydro-sulphuric acid (sulphuretted hydrogen) } H ₂ S	Cymol..... C ₁₀ H ₁₄
Bisulphide of carbon.. CS ₂	Naphthallin..... C ₁₀ H ₈
Hydrocyanic acid .. HCN	Anthracene..... C ₁₄ H ₁₀
Hydro-sulphocyanic acid, } HCNS	Phenanthrene..... C ₁₄ H ₁₀
Acetic acid..... C ₂ H ₄ O ₂	Fluorene..... C ₁₃ H ₁₀
Carbolic acid (phenol). C ₆ H ₆ O	Pyrene..... C ₁₆ H ₁₀
Cresylic acid (cresol).. C ₇ H ₈ O	Crysene..... C ₁₈ H ₁₂
Phorylic acid (phlorol). C ₉ H ₁₀ O	
Rosolic acid..... C ₂₀ H ₁₀ O ₃ (?)	
HYDROCARBONS.	
Methane (marsh gas).. CH ₄	Collidine..... C ₈ H ₁₁ N
Sextane (propyl)..... C ₆ H ₁₄	Parvoline..... C ₉ H ₁₃ N
Octane (butyl)..... C ₈ H ₁₈	Corindine..... C ₁₀ H ₁₅ N
Decane (amyl)..... C ₁₀ H ₂₂	Rubidine..... C ₁₁ H ₁₇ N
Duodecane (caproyl).. C ₁₂ H ₂₆	Viridine..... C ₁₂ H ₁₉ N
Paraffin..... C ₁₀ H ₂₂ +2(?)	Chinoline..... C ₁₀ H ₇ N
Ethene (olefiant gas).. C ₂ H ₄	Leucoline..... C ₉ H ₇ N
Tertene (propylene).. C ₃ H ₆	Lepidine..... C ₁₀ H ₉ N
Sextene (caprolyene).. C ₆ H ₁₂	Cryptidine..... C ₁₁ H ₁₁ N
Septene (ænantylene) C ₇ H ₁₄	Pyrrrol..... C ₄ H ₅ N

SOFT and pliable woods, such as pine, willow, alder, etc., require the use of large saw teeth with acute points and considerable pitch; whereas hard woods or those of a tougher and denser consistence, such as oak, mahogany, rosewood, etc., necessitate the adoption of teeth of perpendicular pitch and diminished space. Yellow deal, pitch pine, larch, etc., are of so gummy and resinous a character that the teeth not only require more set, but the blades themselves have to be smeared with grease to keep them cool, and to decrease the friction arising from the adherence of resin during motion. Similar results are experienced in working soft woods; the teeth become choked by the damp consolidated sawdust, and obstinately refuse to perform their duty without extra force.