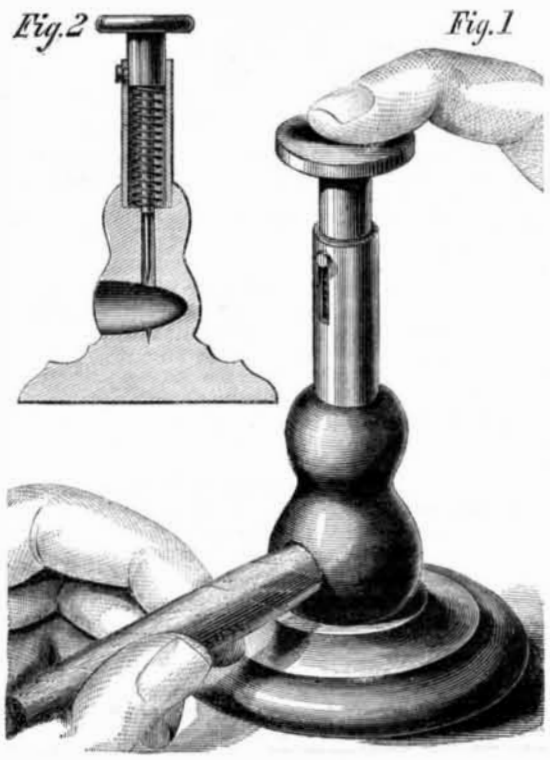
OVERELL'S DEVICE FOR PIERCING CIGARS.

Smokers well understand the annoyance of the unwinding of the cigar wrapper at the end received into the mouth. This frequently follows the common habit of biting off the end of the cigar, which loosens the wrapper and wastes the filling. The piercing by a pocket knife is inconvenient, and if the cigar is "ripe" and dry it often breaks the wrapper and proves as unpleasant as biting or cutting off the end.

A neat little implement, lately invented, is shown in the engravings. Fig. 1 is a perspective view showing the manner of using, and Fig. 2 exhibits the internal arrangement, being a vertical section. The stand may be of metal or wood and ornamented in any manner desired. A large base gives security in standing it upon a counter or table, and the form may be of any style which combines use and elegance. From the



top of the stand rises a sheath in which a piston moves, carrying at its lower end a needle of proper form for puncturing the cigar, and having at its upper end a button to receive the pressure of the finger or thumb.

After depressing the plunger and needle a spiral spring restores them to their original position. A recess in the side of the stand, where the needle impinges upon the cigar is of a form to hold the cigar end in shape while being punctured, and prevents all unrolling, cracking, or breaking of the wrapper, while the needle makes a hole sufficiently large to insure a good draft. Of course by partly rotating the cigar, after one puncture has been made, other holes may be pierced if desired.

This device is intended, principally, for the use of tobacco stores, hotels, etc., although it may be carried in the pocket by a slight modification of its form.

For rights to manufacture address W. D. Overell, 46 King street, New York City.

An Improvement in Car Windows Wanted.

Among the many ills the travelling public are subjected to, one of the most irritating is in opening car windows. When the half suffocated denizen of the city leaves the seething, crowded marts of commerce for his summer residence in the rural districts, he naturally desires to inhale as much fresh air as circumstances permit; in fact, he desires to respire a purer atmosphere than the one he left. Such being the bent of his inclinations, the first impulse on entering a close, crowded car is to open the window. The window, however, with that irritating species of inanimate obstinacy offers a passive resistance, and defies the efforts of even the obliging conductor, who is generally called upon to perform what physically stronger men than he failed in doing. By this time the unlucky traveler in search of fresh air becomes thoroughly irate, as the constrained position he has to maintain, and the want of a leverage or purchase for the arms when endeavoring to open the window, is not only painful from the strain but actually has an injurious effect upon the nerves, especially when one gets his labor for his pains. Some method ought to be introduced by which these provoking windows can be raised and lowered with facility, and without the tremendous exertion now requisite. In addition to this it is exceedingly disagreeable for a lady travelling alone to be obliged to ask one of the gentlemen among her fellow passengers to open or close a window. A request of this kind is often misconstrued into an invitation to conversation, and results in a subjection to impertinences, until the gallant is reminded by sharp rebuke that his intrusive conversation can be dispensed with. —*N. Y. World.*

How to Keep Cool.

Be sparing in your diet, which should consist principally of fruits, berries, and vegetables. Avoid every thing of a greasy nature; also spices, condiments, and sweets. Drink nothing but water. Chew nothing but food; chew that well, but do not chew too much of it. Excess in eating is one of the principal causes of that lazy, listless, relaxing feeling experienced by so many persons in hot weather. Dress lightly, and change often. Wear nothing at night which is worn during the day. Bathe the body every morning with cool or cold water. Keep a clean conscience as well as clean body and clean clothing, and don't get excited. If uncomfortably warm at any time, immerse the hands, or feet, or both, in cold water for a short time, or let a stream of cold water run upon the wrists and ankles. This will cool the whole body in a short time.

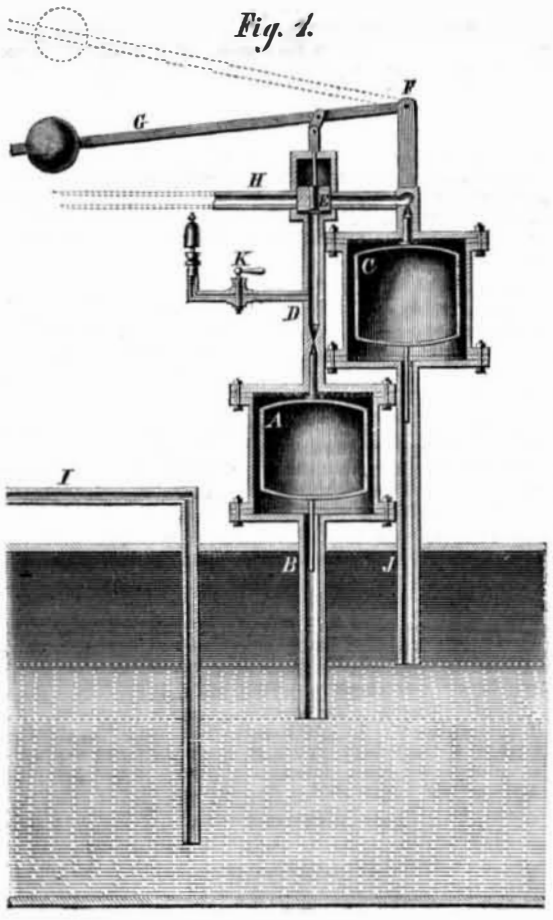
NEYNABER'S AUTOMATIC BOILER FEEDER.

The nature of this invention consists in the construction and application of valves, by means of which the steam of a boiler is brought to act on a piston or alarm whistle when the water falls to a given point, said action of steam being maintained until the water in the boiler rises to a certain point, and is then cut off, and thus a motive power is gained from the moment when the boiler wants feeding until it is sufficiently fed, and no longer, which so gained motive power can be used to perform the work of feeding the boiler automatically.

Fig. 1 represents the boiler feeder. A, is a valve, consisting of a float to which, at the upper part, the valve stem is pivoted. This valve stem is of peculiar construction and one of the most important parts of the apparatus. It terminates in a parallel plug of one eight of an inch diameter and one half an inch long. This plug slides into a hole and thereby closes or opens it, and is so constructed that the pressure of the steam on the plug is reduced, and friction avoided, so that by means of the weight of the float the valve will always open when the water descends through pipe, B. The plug acts also as a punch in case that any dirt should fill up the hole.

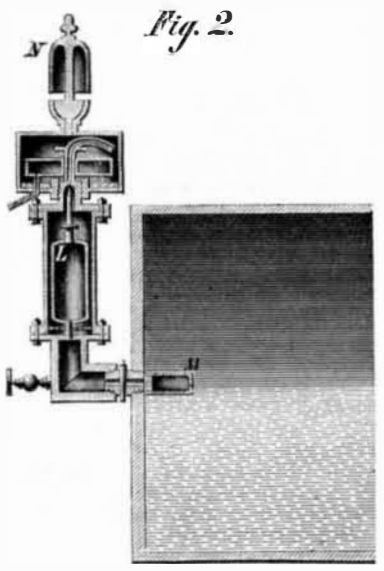
C, is a second valve of the same construction, with the exception of having a larger valve stem and seat. D, represents a pipe for the purpose of having attached, a steam whistle, or also, a steam trap for the separation of the steam from any water. E, represents a piston, which is moved by the steam escaping through the valves, A and C. F is the support of the lever, G, with weight attached. H is a steam pipe, leading steam to a pump. I represents a feed pipe for feeding the boiler. The ends of pipes, B and J, are provided with sieves to prevent foreign substances from entering the pipes.

The operation is as follows: the boiler being filled with water to the upper dotted line, water extends into pipes, B and J, lifts the floats, A and C, and these shut up the apertures at their tops. As the water evaporates below the upper line steam will enter pipe, J, and the water therein will descend; but as the opening of pipe, H, is closed by the piston, E, (which is acting there as a slide valve also), no steam can escape through pipe, H, until the water falls by evaporation below



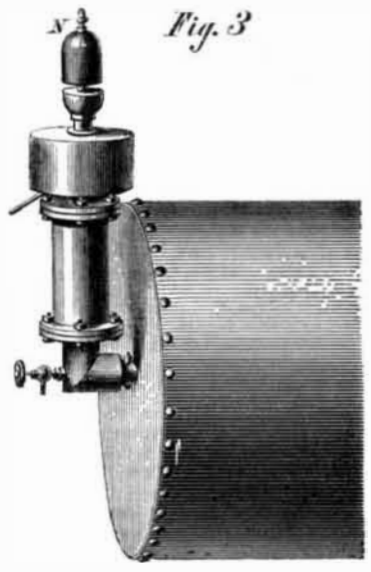
the lower dotted line in the boiler, then steam will flow through pipe, B, the water descend, the float, A, fall, steam find a way through pipe, D, lift the piston, E, which opens by this movement the apertures of pipe, H, and the steam escaping through this pipe can be used to put a separate feeding pump in motion. The movement of the lever, G, caused by the motion of piston, E, can also be used to start or stop a pump by moving the belt on or off the tight or loose pulley, or to open or shut, by means of a lever, the stop cock of a hydrant supplying a feeding pump attached to the engine. The lever can also be connected with the lever of the stop-cock, K, in such a manner that the alarm whistle will be blown when the boiler needs feeding; but as the lever, E, ascends toward its position indicated in dotted lines, the stop-cock will be shut until the feeding operation is performed and the lever descends again by means of its weight. The feeding pump will supply the boiler by means of pipe, I. As soon as the water rises in the boiler to the lower line, water will enter again pipe, B, will lift the float, A, which will close the aperture at its top; but the piston, E, being raised once, will be kept in its position, corresponding with that of the lever as shown in dotted lines, until the water rises to the upper line, when water will enter also pipe, J, and lift the float, C, which then will also close the aperture at its top, and cut off the steam. The pump work will now stop (or the water will be cut off), the steam in pipe, H, condenses, and the piston, E, will by means of the weight be brought down and the whole apparatus will again resume the position first described. This Automatic Boiler Feeder will recommend itself; it is simple in its construction so as to make it durable and reliable.

Figs. 2 and 3 represent the alarm device adapted for steam boilers, to give alarm when the water in the boiler evaporates to a given point, making a most convenient and reliable low water detector.



This alarm device consists of the single valve, L, whereby the orifice of pipe, M, is kept closed as long as the water stands above the dotted line, but is opened as soon as the water falls below the line, to allow the steam to flow through pipe, M, for the purpose of blowing an alarm whistle, N. The apparatus is represented in Fig. 2 in the state of allowing the steam to flow through it, for the purpose of blowing a whistle.

A small quantity of water will rise with the steam and to prevent an ejection of water, out of the alarm whistle, the pipe of the whistle may have an interposition of a steam box by which the water can be separated from the steam and afterwards be drawn off by means of a cock, or by the application of a steam trap, as illustrated in Fig. 2.



The advantages of this contrivance are plainly seen. It does not require any adjustment after it has given alarm, but is always ready again. This device can be put on outside of the boiler, and its proper place will be at the point of the middle gage cock. It can be put on in place of the middle of the three gage cocks, and the middle gage cock again put on the bracket of the alarm device. The bracket can be provided with a stop-cock. This device has been in successful operation at different places in Philadelphia. Patented June 4, 1867.

For other particulars in regard to the Automatic Boiler Feeder and Alarm Device, address the inventor and patentee. Several state rights, including California are for sale by A. F. W. Neynaber, 425 Girard Avenue, Philadelphia, Pa.

ASSOCIATION OF ENGINEERS AND ARCHITECTS.

A semi-annular meeting of this association has just been held in Worcester, Mass., lasting two days. We have no official report of the proceedings, but from a correspondent we learn that Mr. G. P. Low of the Boston and Maine Railroad read a valuable paper on the "Social Relations of Engineers," and among others were papers on the "Currents of the Minnesota and other Rivers," "Copper," "Architecture," "New Methods and Instruments for Drafting," "Improved Crosshead for Locomotives," "Timber Foundations for Masonry," "New Design for a Traveling Crane," and "Street Roadway Pavements."

When the full report of the meeting reaches us, we have no doubt of finding something in it of value to our readers.

SLIPPED INTO THE SEA.—Forty acres of bog land in the county of Mayo, the north-west extremity of Ireland, undermined by heavy rains after long continued drought, lately disappeared in the depths of the Atlantic. Ten acres of standing crops and several houses were destroyed.