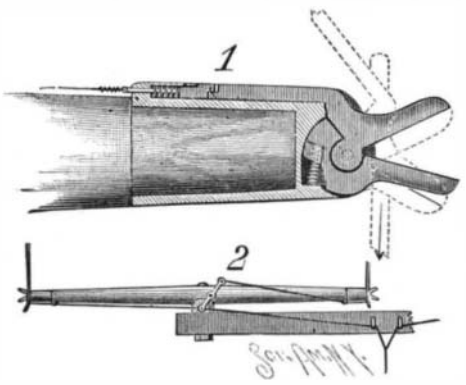
HORSE DETACHER.

The object of the invention herewith illustrated is to provide a simple and efficient device for releasing horses from vehicles in case of a runaway or accident. In a recess in the outer end of the ferrule on the end of the whiffletree are pivoted two arms, one of which is extended along the side of the ferrule, and has its end formed with a bevel and shoulder to receive the end of a bolt sliding in a socket, as shown in Fig. 1. A spring holds the bolt into engagement with the arm. A spiral spring tends to push a shoulder formed on the front or lower arm against a shoulder on the other arm. Normally, the free ends of the arms are separated, as shown in the full lines in Fig. 1; and when it is desired to place the traces on the arms, the



TEETER'S HORSE DETACHER.

front one is moved toward the other, against the pressure of its spring, into position indicated by the dotted line, when the trace can be readily put on. The spring then forces the arm away and retains the trace in place. Near the middle of the singletree is an equal armed lever, that receives in its opposite ends the cords secured to the sliding bolts at opposite ends of the tree. These cords are led, as shown in Fig. 2, within easy reach of the driver. The strain of the traces comes mainly upon the upper or rear arm. By pulling upon the cords the bolts are withdrawn, and the rear arm, being released, is pulled into the position shown in the dotted lines, when the arms, being parallel, allow the traces slip from them.

This invention has been patented by Messrs. S. M. and C. A. Teeter, of Tuscola, Ill.

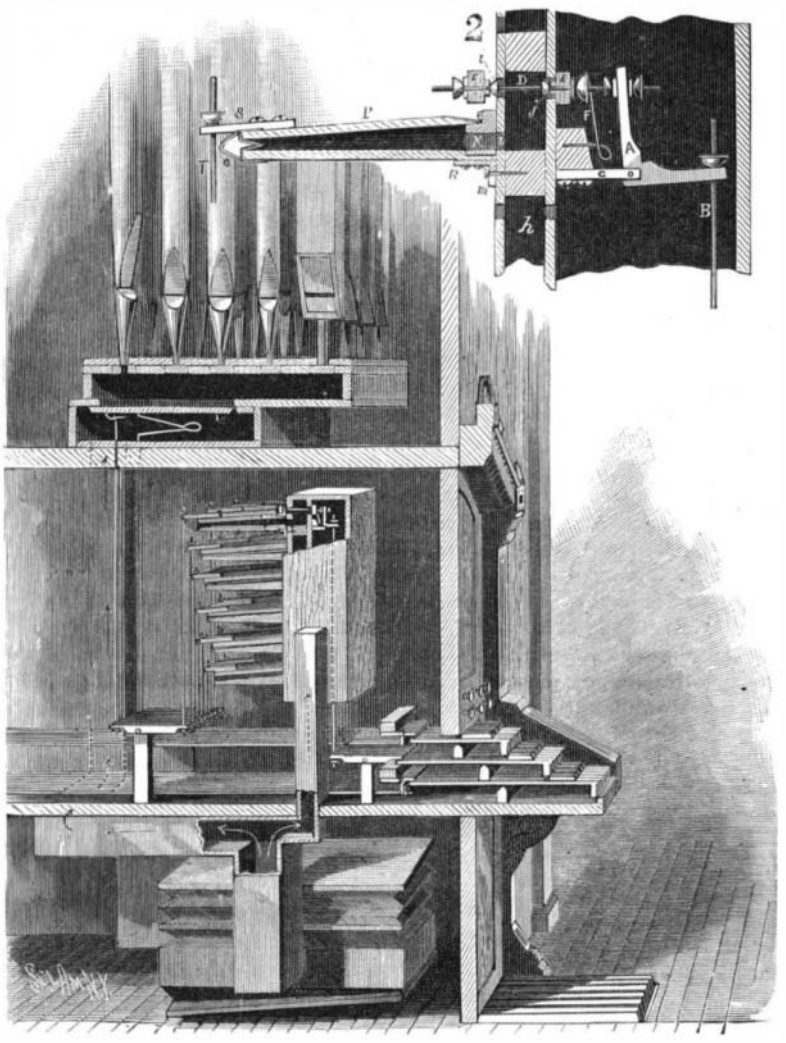
IMPROVED PNEUMATIC ACTION FOR ORGANS.

The pressure applied to the keys is resisted, especially in large organs requiring much wind and consequently large valves, by the compressed air in the wind chest and the valve springs. This resistance has been a source of trouble, as it affected the touch of the performer, and made the pressure required to depress some of the keys so great as to be fatiguing. To a certain extent, this annoyance has been overcome by means of pneumatic bellows, or comparatively small supplemental bellows in connection with the larger valves—those offering the most resistance—and under the control of the keys through the intermedium of levers, connecting rods, and valves, the smaller bellows being also in communication with the main bellows and shut off therefrom alternately as the keys were operated. The air pressure produced by the main bellows was thus utilized to aid the performer in opening those valves presenting the greatest resistance.

The accompanying engraving shows a pneumatic action—the invention of Mr. Ira Bassett, of 453 West Harrison Street, Chicago, Ill.—which is remarkable for its simplicity and compactness, for promptness of action, and for the ease with which it can be taken apart for repairs, if necessary, after years of use. The organ pipes are arranged upon the chest, as plainly shown in Fig. 1, and are controlled by means of slides, which constitute a part of the stop movement of the organ. The connections between these slides, the pneumatic bellows, and the keys are plainly shown in the engraving. The channel board, which constitutes the back of the chest, consists of an outer and inner wall, between which are diagonal strips and horizontal intersecting blocks that divide the space into separate compartments or comparatively small air chambers, *h*, as shown in Fig. 2, which is an enlarged view of one of the pneumatic actions. In the outer wall are two valve openings, *i i*, for each compartment, and in the inner wall is one opening, *j*, for each compartment.

The lower side of the pneumatic bellows, P, is rigidly connected to a heel piece, *k*, in which is an opening, but the upper side is hinged. The rear ends of the two sides are connected by an infolded material, and the sides are constructed as usual to permit inflation. Too great inflation is prevented by a tape, *o*. The bellows are attached to the rear side of the channel board by means of angle plates, R, having slots, *m*, formed in their depending parts to receive screws, which hold the bellows firmly in place and yet permit of their easy removal. The opening, *k*, corresponds with the lower opening, *i*, in the compartment. The trackers, T, are joined to the small arms, *s*, applied to the expanding ends of the bellows. These trackers lead to levers connected with the slides in the chest.

Connected with the lower ends of the bell crank levers, A, are trackers, B, leading to levers operated by the keys. The other ends of the levers, A, are attached to wires, D, carrying the valves, E; these wires pass through the upper openings in each chamber. Springs, F, hold the inner valves closed and the outer ones opened. Depressing a key tilts the lever, A, opens the inner valve and closes the outer one, when the air in the chest enters the compartment, passes into and inflates the bellows. As the bellows is inflated, it raises the tracker, T, whose lever is tilted to draw down its other tracker, which moves its slide to allow wind to pass through and sound a pipe. The air producing this result is of course under pressure, the chest being in communication with the main bellows. When the key is released, the spring returns the valves, E, to their first position when the bellows exhausts, a spring at the same time closing the slide in the main wind chest. The air escapes from the bellows through its opening in the heel, *k*, and the open valve, E. The large view shows six sets of pneumatic actions, each one being similar to the one shown in detail in Fig. 2. As usually made, each row of pneumatic bellows has a chest for supplying air to the bellows and levers for operating the valves But by supplying air to the bellows by means of a vertically arranged channel board divided into chambers, as described, much less space is occupied, since the bellows are separated from each other only sufficiently far to permit of their inflation. By loosening one screw, *m*, the bellows can be removed.



BASSETT'S IMPROVED PNEUMATIC ACTION FOR ORGANS.

A Trade Mark Decision.

The case of Davis *et al. vs.* Davis *et al.*, decided by the United States Circuit Court at Boston, arose upon a bill in equity filed by the plaintiffs to restrain the alleged infringement of their trade mark. The plaintiffs manufactured and sold what was known as "Welcome Soap," and the defendants what was known as "Davis' Old Soap." The plaintiffs, who had their trade mark registered under the laws of the United States, alleged that the arrangement by the defendants of the cakes of soap in boxes with alternate red and yellow wrappers was an infringement of their (plaintiffs') trade mark. The court in denying a motion for an injunction held that the registration, in so far as it could be interpreted to cover the sale of boxes of soap, was entirely void, for the reason that the object or thing included in the inscription was not such a thing as could be lawfully registered as a trade mark. The trade mark, the court said, must be something other than and separate from the merchandise. In reference to the claim that the trade mark consisted of the colors in the wrappers, the court said that this seemed to be no less than an attempt to claim a patent for an idea under the guise of the registration of a trade mark.

THE FLUTTERING FLY.

A very important article in the equipment of the sportsman who with rod and tackle essays to tempt the shy trout or black bass to exchange his icy brook for a soft bed of leaves in a fishing basket, is his assortment of artificial flies. Heretofore they have been arranged so that the fly headed toward the line. In this position the wings offer considerable resistance to the air when the line is being cast, and lie so close to the body when the fly is drawn through the water that the motion of a live insect is not very successfully simulated. A much more satisfactory arrangement is that just patented by Mr. Wakeman Holberton, of Hackensack, N. J., in which the fly or other bait is headed in the opposite direction, that is, toward the point of the hook, as shown in our illustration. When so arranged, the wings offer less resistance to the air in casting. As the fly is slowly drawn toward the angler the wings expand, and give it a fluttering, life-like motion, much more alluring to the fish. The patent for tying artificial flies in this manner is controlled by Messrs. Abbey & Imbrie, the well-known manufacturers of fishing tackle in this city.

Resting after Meals.

A friend of the writer's, who has suffered from dyspepsia during almost her entire life, considers the suggestions in the following extracts from an article in a recent issue of *The Journal of Health* to be the most in accord with her own experience of anything on the subject lately published.

Hurried eating of meals, followed immediately by some employment that occupies the whole attention and takes up all, or nearly all, of the physical energies, is sure to result in dyspepsia in one form or another. Sometimes it shows itself in excessive irritability, a sure indication that nerve force has been exhausted; the double draught in order to digest the food and carry on the business has been more than nature could stand without being thrown out of balance. In another case, the person is exceedingly dull as soon as he has a few minutes of leisure. The mind seems a dead blank, and can only move in its accustomed channels, and then only when compelled. This, also, is an indication of nervous exhaustion. Others will have decided pains in the stomach, or a sense of weight, as if a heavy burden was inside. Others, again, will be able to eat nothing that will agree with them; everything that is put inside the stomach is made the subject of a violent protest on the part of that organ, and the person suffers untold agonies in consequence. Others suffer from constant hunger. They may eat all they can, and feel hungry still. If they feel satisfied for a little time, the least unusual exertion brings on the hungry feeling, and they can do no more until something is eaten. It is almost needless to say that this condition is not hunger, but inflammation of the stomach. Scarcely any two persons are affected exactly in the same way, the disordered condition manifesting itself according to temperament and occupation, employments that call for mental work, and those whose scene of action lies indoors, affecting persons more seriously than those carried on in the open air and those which are merely mechanical and do not engage the mind.

All, or nearly all, of these difficulties of digestion might have never been known by the sufferers had they left their business behind them and rested a short time after eating, instead of rushing off to work immediately after hastily swallowing their food.

Nature does not do two things at a time and do both well, as a rule. All know that when a force is divided, it is weakened. If the meal were eaten slowly, without preoccupation of the mind, and the stomach allowed at least half an hour's chance to get its work well undertaken before the nervous force is turned in another direction, patients suffering from dyspepsia would be few.

A physician once said: "It does not so much matter what we eat as how we eat it." While this is only partly true, it certainly is true that the most healthful food hurriedly eaten, and immediately followed by work which engages the entire available physical and mental forces, is much worse than a meal of poor food eaten leisurely and followed by an interval of rest.