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### Flavoring Essences.

These preparations are exceedingly useful for the cook's purpose. It is often desired to flavor a soup or potage without the appearance of the material from which it is derived; in such cases nothing is more fit or simple than to apply a few drops of the plant's essence, the flavor of which is required. An ingenious cook, by a just combination of these materials, will produce a new flavor much in the same way that a perfumer creates a new odor, by altering the proportions of a mixed scent, which, if properly blended, the originals from which it is prepared can with difficulty be recognised. Some of these essences are applicable for soups and made dishes, and others for confectionary. One caution alone is necessary in their use, and that is, to apply them in minute quantities only. If the thing be overdone, it becomes nauseous, and brings discredit instead of praise. The old adage, "we can have too much of a good thing," may be well applied here. The cook's palate is, however, the best guide as to the proportions to be used.

ESSENCE OF MINT, THYME, SAGE, CELERY, AND CINNAMON—Take half a pint of rectified spirits, and dissolve in it half an ounce of the essential oil of any of the above substances.

ESSENCE OF CLOVES, CASSIA, AND NUTMEG—Take half a pint of spirit to one ounce of the oils.

ESSENCE OF LEMON AND ORANGE—Take spirit half a pint, essential oil of orange or lemon three-quarters of an ounce.

ESSENCE OF ROSE, PEPPERMINT, AND ALMOND—Take spirit half a pint, oil of rose (called "otto of rose," oil of peppermint, or of almond, one quarter of an ounce.

All these oils dissolve in rectified spirit if slightly warmed. Instead of spirits of wine the best French brandy may be used with advantage.

ESSENCE OF VANILLA—Take half a pint of spirit, or brandy, vanilla pods half an ounce; cut the vanilla very small; and let them digest for a month in a temperate place.

ESSENCE OF GINGER—Take spirit, one pint; crushed ginger, eight ounces; chillies, one-quarter of an ounce. Let the whole stand for a month; then strain, and it is fit for use.

ESSENCE OF ALLSPICE—Take spirit half a pint; essential oil of pimento, one ounce; mix, and it is ready for use.

### SEPTIMUS PRESSE.

London.

### To Destroy Rose Bugs.

The Buffalo Republic says:—When the rose bug first makes its appearance, sprinkle your bushes profusely with the pollen of the flower of the alanthus tree, or pour upon the bushes, through a watering pot, a strong decoction of the same. You will presently see hundreds of the bugs falling to the ground, there to die. The operation may be repeated once or twice a day, until they entirely disappear, which generally takes place in less than a week.

## STEAM BOILER FEEDER.

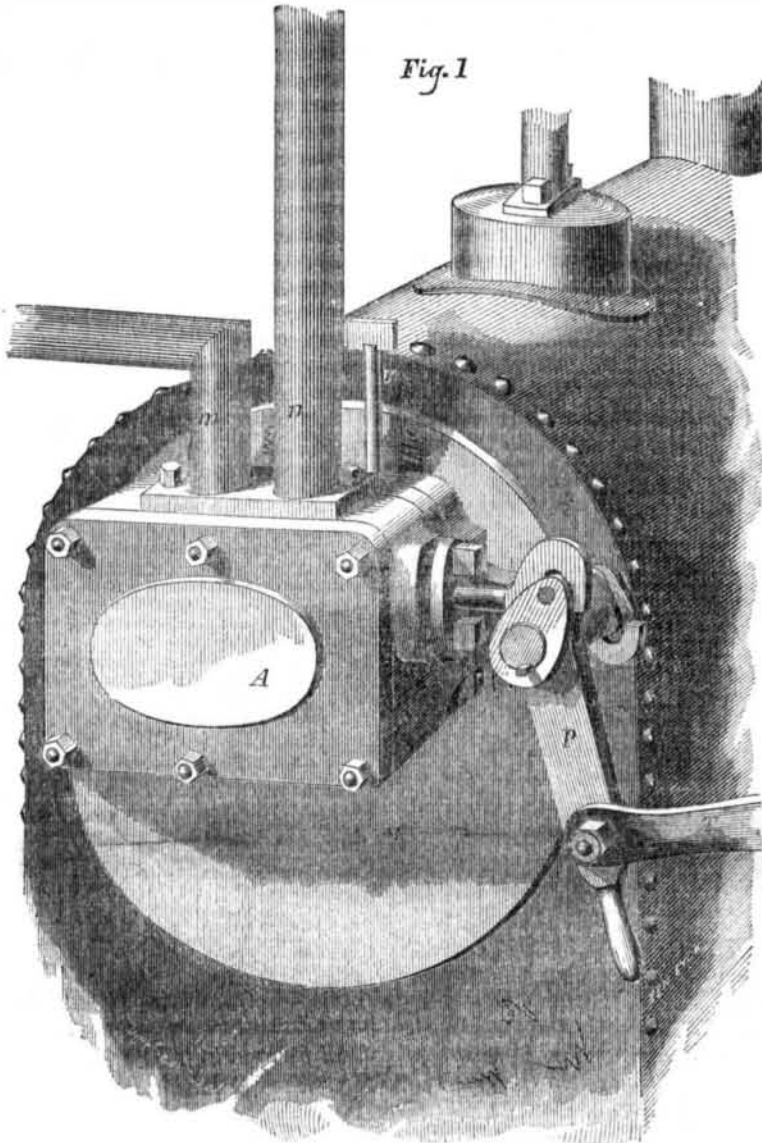
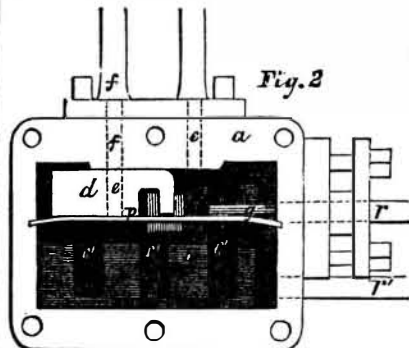


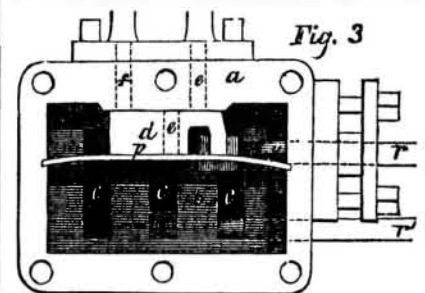
Figure 1 is a perspective view of an apparatus for supplying steam boilers with water, for which a patent was granted to Benjamin F. Bee, on the first of August last, to which he has given the title of Hydrestant. Figs. 2 and 3 are sectional views of the apparatus, showing the internal arrangements and the different positions the two valves are made to occupy, by which contrivance water is supplied to the boiler in proportion to the demand.



A is a rectangular box, bolted upon any convenient part of the boiler, and at such height that its center shall coincide with the point *a* at which it is intended the water shall be sustained. This box is divided into two parts vertically by a partition, on the back of which, and next the boiler, stands the upright valve *o'*. *c c c*, fig. 3, are ports in this partition corresponding to others in the valve, which afford free communication between the chest and the boiler. *d* represents a valve lying horizontally against the upper surface of the box corresponding to the ports, *f* and *e*, which communicate with pipes, *m*

and *n*, fig. 1, leading to the tank whence the water is supplied. *r* and *r'* are the valve stems respectively, which are actuated by the rocking shaft, *T*, and lever, *P*, fig. 1. It is made to vibrate about 90°, and from 4 to 6 strokes per minute, by suitable connection with any positive mover. When one of the valves is shut the other is open, and vice versa.

Having designated the principal parts we will consider their operation. Suppose the water to be at its proper height in the boiler, and the ports, *c c c*, fig. 3, being open; its



level will be continued through each section of the box, and will stand as represented at *b*. It is evident then, that the lower half of the box will contain water, and the upper half steam. If now the lever, *P*, be carried to the right, the ports, *c c c*, will be closed, and all communication with the boiler shut off. By continuing this motion of the lever still further, the valve, *d*, which had remained stationary, as in fig. 3, will assume the position as in fig. 2. It will be seen by this fig., that the port, *e*, commences at the valve seat, while the port, *f*, is continued through the depth of the valve. The effect

of this arrangement is, that whatever steam the box contained naturally seeks *e* as its outlet, and is conveyed to the upper part of the tank by its appropriate pipe, while at the same time, water is flowing from the tank through pipe, *f*, and the box or sheet is immediately filled with water. In due time the lever, *P*, returns, the valve, *d*, assumes a position as in fig. 3, the ports, *c c c*, are opened, presenting the water in the box one half its height higher than in the boiler, which, however, immediately finds its level by flowing into the boiler, being replaced by steam. By the next change of the valves, the box is again filled, then again emptied, and so on. It will be seen that, by this apparatus, the level of the water in the boiler cannot supersede a certain height. Suppose for instance, the consumption of water to be checked, this machine being in constant operation, the water will begin to rise into the boiler, and each feed introduced will be proportionably less, until the level of the water in the boiler arrives at the upper surface of the box, where the feed will stop, because the chest or box cannot receive any more. And when the valves change for water to pass to the boiler, it cannot do so, it being already on a level. So also should the water fall in the boiler such feed will be proportionably greater, until the whole box full is discharged at each stroke, which is calculated to be ample for all emergencies.

This apparatus is especially adapted to stationary engines where a tank or heater is employed, or where the water is received at a higher level than the boiler. It does not add materially to the cost of such an engine, as it supersedes the necessity of a force pump. For all steam generators, where steam is not employed as a motive power, its adaptation is evident.

This invention is now the property of the American Steam Safety Company, and is the first of a series which they are about to introduce to the public for the accomplishment of the same, and kindred purposes.

For more information, communications addressed to Benjamin F. Bee, consulting engineer, or J. B. Barnaby, at the office of the Company, No. 335 Broadway, this city, will meet with attention.

### Simple Invention Wanted.

The greatest annoyance in Southern climates is mosquitoes, and any one who would invent a fan for keeping them off at night, and allow us to dispense with mosquito nets, might realize a fortune in New Orleans alone in one summer. All that is wanted is a cheap motive power which will keep two or three broad light fans in motion for eight hours; they might be constructed for a few dollars. The nights at the South would be pleasant enough were it not for the obstruction to the air by the use of mosquito nets, and any one would pay liberally to be relieved from them.

Mobile, Ala.

[In 1832, Commodore Barron obtained a patent for moving a revolving fan by clock-work, for the very purpose described by our correspondent. We really believe that a strong clock-work machine, operated by a spring or weight, could be made at a cost not exceeding eight dollars, to rotate two fans for eight hours. It seems singular, however, that if a fan can accomplish the desirable results set forth by our correspondent, that Commodore Barron's invention should not have come into general use by this time.

The average duration of human life throughout the world is 33 years. One-quarter die previous to the age of seven years; one-half before reaching seventeen.