No. 606,907. Patented July 5, 1898.

B. F. AIKEN.

DEVICE FOR CLEANING PAINT AND VARNISH FROM SURFACES.

(Application filed May 18, 1897.)

(No Model.)

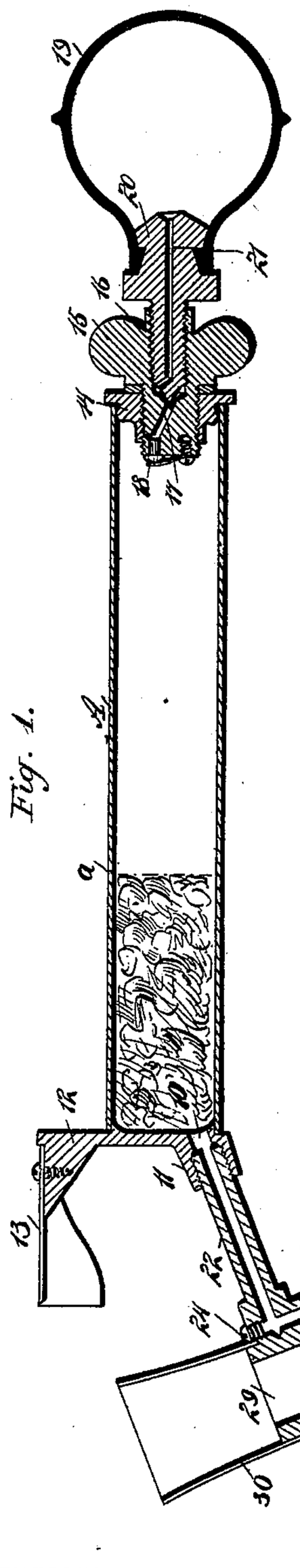

Fig. 1.

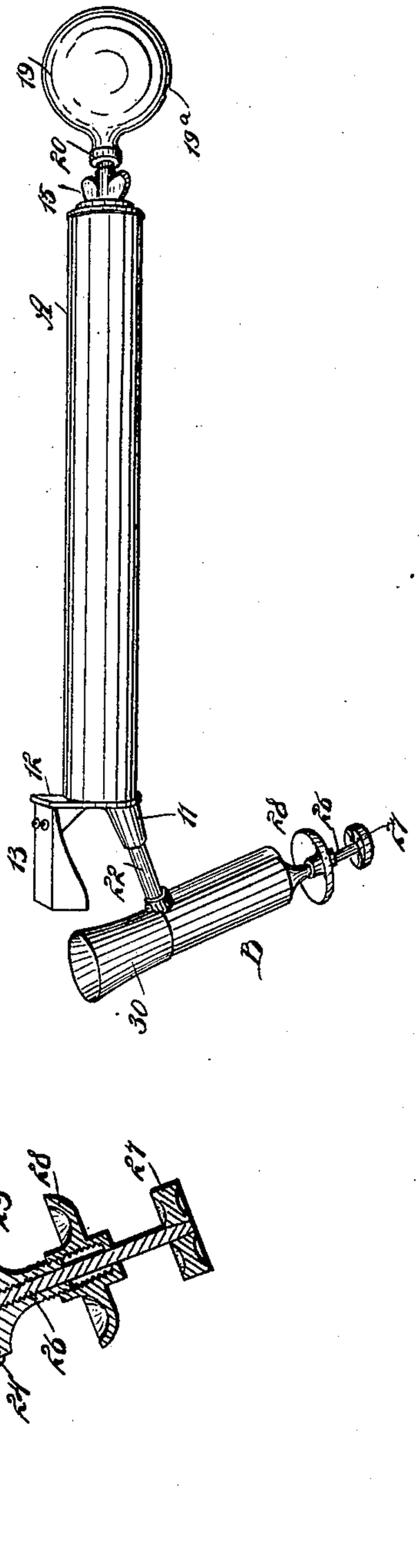

Fig. 2.

WITNESSES:

Otto Spieth.

D. C. Acker.

INVENTOR

B. F. Aiken.

BY Munn & Co.

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

BENJAMIN F. AIKEN, OF FREETOWN, MASSACHUSETTS.

DEVICE FOR CLEANING PAINT AND VARNISH FROM SURFACES.

SPECIFICATION forming part of Letters Patent No. 606,907, dated July 5, 1898.

Application filed May 18, 1897. Serial No. 637,039. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. AIKEN, of Freetown, in the county of Bristol and State of Massachusetts, have invented a new and Improved Device for Cleaning Paint and Varnish from Surfaces, of which the following is a full, clear, and exact description.

The object of the invention is to combine a burner, a tank for supplying the burner with fuel and adapted to serve as a handle, and a scraper whereby an implement or tool may be provided capable of being operated by one hand, if necessary, and of softening or loosening the paint or varnish and of removing the loosened material.

Another object of the invention is to construct a device of the character above described in an exceedingly simple, durable, and economic manner.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

Figure 1 is a central vertical section through the improved device, and Fig. 2 is a side elevation of the same.

A cylinder A is provided as the handle of the device. This cylinder is adapted to contain the naphtha or other liquid to be supplied to the burner B, to be hereinafter described. A packing of cotton is placed at one end of the cylinder, preferably the lower end, the upper surface of the packing being designated by the dotted lines *a*, although the packing may be used in greater or lesser amount than indicated in the drawings. The lower end of the cylinder is practically closed, being provided, however, with an outlet-opening 10, surrounded by a threaded collar 11, and from the front surface of the cylinder at its bottom an arm 12 is horizontally or outwardly projected, and to said arm a scraper 13 is secured by means of a screw or its equivalent.

The scraper employed may be a knife of any desired shape or a shape for removing the loosened paint or varnish from a surface. At the opposite end of the cylinder a cap 14 is located, provided with an opening having its wall threaded, the said opening being adapted to receive a filling-plug 15, said plug being usually provided with wings in order that it may be readily turned. Furthermore, the filling-plug is provided with an opening 16, extending through from the top to a point at or near its center, the wall of which opening is threaded, and a passage 17 connects with said opening, the said passage extending through the inner or bottom portion of the plug, and it is normally closed by means of a tension-controlled valve 18, as shown in Fig. 1.

A force-pump is employed in connection with the cylinder, and this force-pump consists of a rubber bulb 19, which is secured upon a shank 20, the shank being reduced in diameter below the bulb and exteriorly threaded. The dimensions of the reduced and threaded portion of the shank 20 are such that said shank may be readily screwed into the opening 16 in the filling-plug, and the lower end of the opening in the filling-plug is made tapering or conical, so that when the shank of the force-pump is screwed a certain distance into the filling-plug the point of the shank will enter the passage 17 and close the same.

A channel 21 is made in the shank of the force-pump, extending through from the outer end of the shank, or that end which is in the bulb, nearly through to the opposite end; but the lower portion of the channel 21 is directed to one side of the shank 20, so that it will pass out of the shank above its pointed inner end and into a space provided in the bottom portion of the opening 16 in the filling-plug. The bulb is provided with the usual air-inlet opening 19^a, as shown in Fig. 2.

A tube 22 is screwed into the collar 11 at the bottom of the cylinder or handle A. This tube forms a portion of the burner B, being in communication with a chamber 23, made adjacent to one side of the burner and extending along the head, as shown in Fig. 1. The ends of the chamber 23 are closed by removable plugs 24.

The upper portion of the chamber 23, or that portion which extends transversely of the burner, is provided with a tapering opening 25, which receives one end of a needle-valve 26, screwed into the head portion of the burner, the valve terminating at its other

end in a disk 27 or its equivalent, so that it may be readily manipulated. A gland 28 in the form of a cup is provided for said valve, secured upon the head portion of the burner, in which naphtha may be burned to start the device by heating the burner. The burner is provided with the usual combustion-chamber 29, and at the outlet of this combustion-chamber a hood 30 is formed to prevent the flame being affected by currents of air.

It will be understood that under the construction set forth a pump, a reservoir for an ignitible fluid, a burner, and a scraper are all combined in one article, enabling a person using said article to scorch or soften the paint or varnish on a painted or varnished surface and at the same time remove the loosened or softened material. Heretofore it has been customary for painters to carry a burner in one hand for loosening the surface to be removed and to remove the said loosened surface through the medium of a knife operated by the other hand. When the knife or scraper and burner are combined as set forth, one hand of the operator is left entirely free, and the work can be more expeditiously and efficiently performed than when the burner and the scraper are independently operated.

By connecting the pump with the filling-plug for the reservoir in the manner set forth an additional opening into the reservoir for the attachment of the pump is avoided and the air-preesure is readily applied to the surface of the liquid in the reservoir. The bulb and the filling-plug are also readily disconnected from the reservoir when desired. The end of the shank of the bulb serves as a valve to establish or cut off communication between the bulb and the interior of the reservoir. To apply the air-pressure, the shank of the bulb is turned back sufficiently to open the passage 17. The bulb is then pressed a few times to force the air into the reservoir, and the shank is then screwed up tight. The air-pressure is thus readily applied to the liquid in the reservoir and the escape of air from the reservoir being impossible when the shank is screwed to its seat.

In operation, by pressing the bulb or operating the force-pump the naphtha will be forced into the chamber 23 of the burner with sufficient air to generate an inflammable gas, and the supply of gas to the combustion-chamber of the burner is controlled by the valve 26. The scraper is placed as near to the outlet of the burner as practicable, so that the surface which has been heated shall not become cool before the scraper is passed over it.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a device for removing paint and varnish from surfaces, a reservoir, a burner connected with said reservoir, a filling-plug provided with a passage communicating with the reservoir, and a pump having a shank arranged for connection with the said filling-plug, the shank having a passage adapted to communicate with the passage in the filling-plug, the said shank serving as a valve to establish and cut off communication between the pump and reservoir, substantially as shown and described.

2. In a device for removing paint and varnish from surfaces, a reservoir, a burner connected with said reservoir, a filling-plug removably connected with said reservoir and having a valve-controlled passage, and a pump consisting of an elastic bulb provided with a shank arranged for connection with the said filling-plug, the shank having a passage adapted to communicate with the passage in the filling-plug, the inner end of said shank serving as a valve to establish and cut off communication between the bulb and the reservoir substantially as shown and described.

3. The combination with a reservoir adapted to contain ignitible material, a burner connected with one end of said reservoir and a cap located at the opposite end of the reservoir, of a filling-plug removably secured to the said cap, the said plug having a screw-threaded opening extending from the top to a point at or near the center, the lower end of said opening being conical in shape, the said plug being provided with a passage extending from the bottom of said opening through the inner or bottom portion of said plug and provided at its inner end with a tension-controlled valve, a bulb provided with an exteriorly-threaded shank adapted to screw into the opening in the plug, the lower end of said plug being shaped to fit the lower end of the opening in the filling-plug and adapted to close the passage leading therefrom, the said shank being provided with a channel extending from the end connected with the bulb to a point near the opposite end, the inner or lower end of said channel being directed to one side and passing out of the shank above its inner end and opening into the lower part of the opening in the filling-plug, substantially as set forth.

4. The combination with a burner, and a reservoir connected at one end with said burner and serving as a handle for the device, a screw-plug removably secured to the other end of the reservoir and formed with a screw-threaded opening and a passage leading from said opening and communicating with the reservoir, of a pump provided with an exteriorly-threaded shank adapted to screw into the opening in the said plug, the said shank having a passage adapted to communicate with the passage in the plug, the shank serving as a valve to establish and cut off communication between the pump and reservoir, substantially as described.

BENJAMIN F. AIKEN.

Witnesses:
NATHAN R. DAVIS,
WILLIAM A. DAVIS.