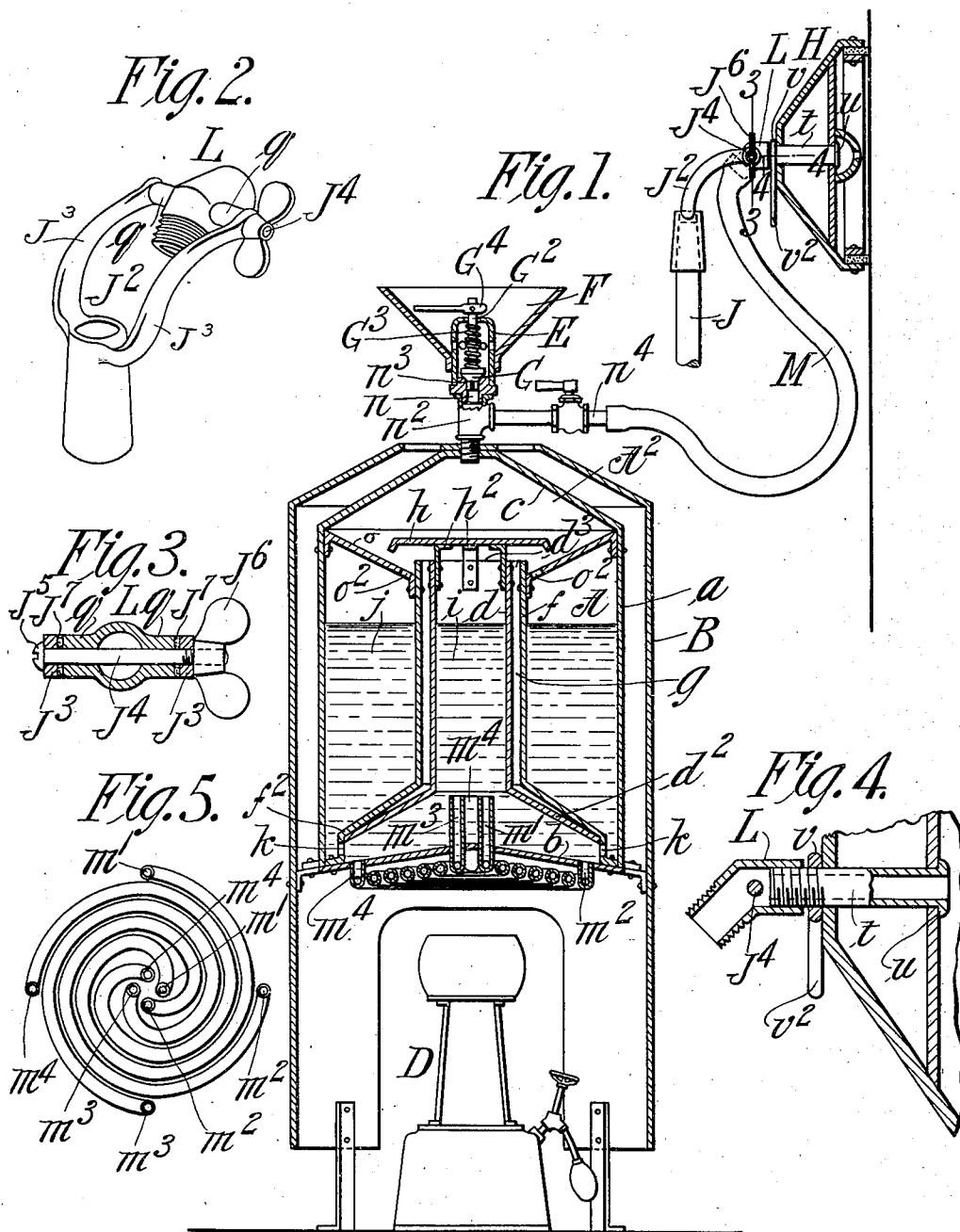


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 APPARATUS FOR REMOVING OLD PAPER FROM WALLS.
 APPLICATION FILED FEB. 25, 1911.

1,018,345.

Patented Feb. 20, 1912.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WAYNE C. ROBERTS AND GEORGE E. CORSER, OF HOLYOKE, MASSACHUSETTS.

APPARATUS FOR REMOVING OLD PAPER FROM WALLS.

1,018,345.

Specification of Letters Patent.

Patented Feb. 20, 1912.

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To all whom it may concern:

Be it known that we, WAYNE C. ROBERTS and GEORGE E. CORSER, citizens of the United States of America, and residents of Holyoke, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Apparatus for Removing Old Paper from Walls, of which the following is a full, clear, and exact description.

We, having patented under date of Nov. 8, 1910, No. 975,284, an apparatus for softening and removing old paper from walls, have found in the exercise of the invention set forth in said patent that while susceptible of very advantageous use, it still lacked certain provisions for a maximum of efficiency and convenience; and we have accordingly devised, developed and put into practical operation in conjunction with the apparatus of the form disclosed in our former patent, certain provisions or devices to the end of greatly increasing the practical value of the same. These improvements have been made to the end of enabling one to have a steam supply at the steaming head within a very short time from the lighting of the burner under the boiler; of enabling one to make use of the head in a more advantageous manner than heretofore by reason of certain adjustable features provided therefor; and of simplifying the apparatus by making the valved water filling means for the boiler and the safety valve as one double duty serving appliance.

The invention is described in conjunction with the accompanying drawings and set forth in the claims.

In the drawings:—Figure 1 is a central sectional elevation of the complete apparatus; Fig. 2 is a perspective view showing the yoke formed upper end of the operating handle with certain features of novelty combined therewith. Fig. 3 is a cross sectional view on line 3—3, Fig. 1, Fig. 4 being a partial horizontal sectional view as taken on line 4—4, Fig. 1; Fig. 5 is a plan view showing the peculiar arrangement of the pluralized heating coils which are employed beneath the boiler.

Similar characters of reference indicate corresponding parts in all of the views.

In the drawings, A represents the boiler of cylindrical shape comprising outer shell *a*, bottom *b*, top *c* and inner annular shell *d* having a widened lower portion *d*², and open

at its top *d*³ below the top *c* of the boiler proper, and an upwardly opening annular shell *f* of larger diameter than the inner shell and having at its lower portion *f*² a closed relation to the inner shell so that an annular air space *g* is created between the concentric shells *d* and *f*, which space opens upwardly as shown and has a hood or baffle plate *h* supported by bracket arms *h*² thereover. The internally located concentric upwardly opening shells *d* and *f* create in addition to the intermediate air space separated concentric inner and outer water compartments *i* and *j*, the same having at the bottom of the boiler communication with each other by way of the port *k*.

The boiler is inclosed by a sheet metal casing B which is of a somewhat larger diameter than that of the boiler, such casing being closed at its top and made with a lower portion which depends below the base of the boiler to form a partial inclosure for the burner D.

The water supplied into the boiler is heated by passing through coils beneath the boiler, the water being taken from the outer portions of the boiler at its bottom and re-delivered upwardly through the bottom of the boiler at the central portion thereof; and the arrangement of the pluralized heating coils is shown by the plan view, Fig. 4, in which 4 of the coils are shown, the opposite upturned ends of which are designated by *m*¹, *m*², *m*³, and *m*⁴. These pipes are of coiled form, have nested arrangements so as to form a substantially circular mat of coils, the outer upturned extremity of each being extended for a short distance upwardly to communication with outer portions of the boiler, while their inner upturned extremities which are in proximity to each other connect into a central portion of the boiler.

Water filled into the boiler through the supply pipe *n* is prevented by the hood or baffle plate *h* from entering either the central water compartment *i* or the annular air space *g*, but is deflected to fall on the downwardly inclined partition wall *o* and will pass through the ports *o*² into the outer compartment *j*; and thence passing through the port *k* into the widened chamber at the bottom of the inner compartment it is carried in a distributed manner through the four coils, subject to the action of the heater D, and issues through the upturned inner extremity of each coil into the central por-

tion of the inner compartment; and the steam thus generated has free passage into the partitioned off top chamber A² in the boiler. The intermediate air space *g* between the outer and inner water compartments prevents the inflowing cool water from having a cooling effect on the highly heated water and steam in the central compartment *i*.

10 The water supplying passage *n* at the top of the boiler is comprised in a coupling member *n*², and such passage *n* is formed at its upper end with a valve seat opening *n*³.

15 E represents a frame or apertured shell arranged in an embracing relation about and above said valve seat, and an upwardly opening funnel surrounds the frame.

20 G represents the valve adapted to the valve seat and having a stem G² which extends upwardly and is loosely guided through the top of the frame.

25 G³ represents a spring in compression between the frame and the valve for normally holding the valve closed and making of the device a safety valve, as well also as one to be opened to permit the free pouring of water into, and for supplying, the boiler.

30 *g*⁴ represents a cam ended lever pivoted on the portion of the valve stem which protrudes upwardly above the frame so that by swinging this cam lever into an upright position, and temporarily leaving it in such position, water as required may be readily supplied into the boiler; and, of course under running conditions the cam lever is swung to its normal horizontal position as represented in Fig. 1.

35 The steaming head H of substantially the same form and character as described in our former patent, is carried in manner as explained in said patent at the upper end of the pole or operating handle J; but in the mounting of the head at the upper end of the operating handle or pole, provision is made whereby the head is adjustable, revolvably about a horizontal axis, so that its forward working edge may conform to a vertical wall, so that such working edge may conform to a horizontal surface, as that of a ceiling or so that such edge may have any oblique disposition as occasion in some cases may require; such provisions comprising means for the reliable confinement of the head in any of its stated adjustments. 40
45 And, moreover, the head is also adjustable revolvably about an axis at right angles to the aforementioned horizontal axis so that when it is being worked at the upper or forward extremity of the pole, it may have its longitudinal edges at any desired angle to the length of the pole for most convenient and effective work on the part of the paper hanger. As means,—not necessarily the only means,—to such ends, constructions and arrangements are provided as follows: 50
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The operating handle J has a fork or yoke J² at its upper end receiving therebetween an angular tubular coupling member L having opposite trunnions *q q* in horizontal alinement, the ends of the trunnions fitting between the opposite arms J³, J³ of the yoke. 70

J⁴ represents a shaft which extends transversely through the extremities of the yoke arm and loosely through the coupling L in the axial line of the trunnions, such shaft having a head J⁵ at one end which forms a shoulder in engagement with one yoke arm, while its opposite extremity, which is formed screw threaded, projects outwardly beyond the other yoke arm and receives a clamping nut J⁶ in screw engagement thereon, as shown in Fig. 3. 75
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J⁷, J⁷ represent washers of compressible or frictioning material interposed between the trunnion ends and the inner faces of the yoke arm, so that when the binding nut is tightened a reliable clamping binding of the coupling is assured; and, of course, to adjust the head on the axis shaft J⁴, it is only necessary to loosen the nut. 85
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The coupling member L receives at the rear end thereof the connection therewith of the flexible pipe M which extends to proximity with the top of the boiler and has connection with the branch *n*⁴ of the coupling *n*² through which the water supplying passage *n* is formed. 95

The steaming head shown as having rear and front walls for the creation of an air space in the back thereof is mounted on a tubular extension *t* which is passed from front to rear through the double walls of the head, and with a tight engagement into the forward portion of the yoke carried coupling L. This tubular extension has a shoulder *u* at its forward end which engages the wall of the steaming head and at its portion adjacent and to the rear of the back wall of the steaming head, it is externally screw threaded and receives the engagement thereon of a nut *v* provided for convenience with a lever handle *v*², so that by turning the handle of the nut in one direction, the head will be held firm and rigid relatively to the yoke carried coupling member, while, upon the loosening of the lever nut the head may be revolvably adjusted around the axis of the tubular extension of the coupling L, which extension has its length extending right angularly to the shaft J⁴ and trunnions *q q*. 100
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It is manifest that the parts in combination and arrangement as described, and having constructions as shown and described, produce a wall paper remover, of great practical value to paper hangers, susceptible of production at comparatively small cost.

The invention is not, however, to be considered as limited to the precise details of 130

construction shown and described, as changes therefrom may be made without departing from, or sacrificing the advantages of, the invention.

5 We claim:—

1. In an apparatus of the character described, the combination with a steam supply receptacle and a steaming head, of a tubular member with which the steaming head is connected, a flexible pipe having connection with the steam receptacle and with said tubular member, and an operating handle on which said tubular member is swiveled, and means for confining the tubular member in any adjustment on the operating handle.

2. In an apparatus of the character described, an operating handle, a fluid delivering head supported by the handle, revolvably adjustable relatively to the latter about a substantially horizontal axis and also revolvably adjustable about an axis at right angles to the first named axis, and a fluid conduit connected with said head.

3. In an apparatus of the character described, in combination, a boiler; a steaming head, an operating handle on which the head is revolvably adjustable about a substantially horizontal axis and also adjustable about an axis at right angles to such horizontal axis, respective means for confining the head in its separate adjustments relatively to the handle, and a flexible pipe between and to have communication with the boiler and the head.

4. In an apparatus of the character described, in combination, an operating handle having a yoke at its upper end, and having a coupling member mounted to swivel in the yoke, and means for confining it in any given adjusted position, a tubular member forming a rigid forward extension of the coupling member, a steaming head revolvably adjustably mounted on the tubular extension member, means for confining the head in its adjustment on such member, and a steam supplying conduit connected with the coupling member.

5. In combination, an operating handle having a yoke, an annular hollow coupling having trunnions between the arms of the yoke with compressible frictioning material between the trunnions and arms, a shaft, extending loosely through the trunnion provided coupling and through the arms, having a head at one end and screw threaded at its other extremity, a binding nut on the threaded extremity, a steaming head carried by and forward of the coupling, and a steam supply conduit connected with the coupling.

6. In an apparatus of the character described, in combination, an operating handle having a yoke at its upper end, an angular tubular coupling member having opposite

horizontal trunnions, arranged between the arms of the yoke, a shaft extending transversely through the extremities of the yoke arms and axially through said trunnions, having a head at one end in engagement with one yoke-arm, and having its opposite extremity projecting outwardly beyond the other yoke-arm, formed screw threaded and having a clamping nut screw engaged thereon, a steaming head connected with said coupling member at its forward portion, and a steam supplying conduit connected with the rear portion of the coupling member.

7. In an apparatus of the character described, in combination, an operating handle having a yoke at its upper forward end carrying a coupling member between the arms thereof, said member having a forward tubular extension, and having a flexible conduit connected therewith, a steaming head revolvably adjustable, mounted on said tubular extension, and means screw engaging on the tubular extension, and also engaging the rear of the steaming head for confining it in its adjusted position.

8. A boiler having a water supply leading thereinto, a series of pipes located beneath the boiler having the outer extremities thereof upwardly extended and communicating into the boiler through outer portions of the wall thereof, said pipes being of coiled form having nested arrangements with each other and having their inner extremities in proximity to each other and upwardly extended to within a central portion of the boiler, and a heater beneath the coils, in combination with a steaming head, a flexible pipe connecting such head and boiler, and means for supporting and operating the steaming head.

9. A boiler having a water supply passage leading thereinto, having an inner upwardly opening and annular shell widened at its lower portion and also having an upwardly opening annular shell of larger diameter than the inner shell having at its lower portion a closed relation to the inner shell and creating between it and the latter an annular space, and such shells also forming concentric water compartments within the boiler, and the same having passages leading from the bottom of the outer to the inner compartment and means under the boiler for heating the same, in combination with a steaming head, a flexible pipe connecting such head and boiler, and means for supporting and operating the steaming head.

10. In an apparatus of the character described, in combination, a boiler having a water supply passage leading thereinto, a series of pipes located beneath the boiler having the outer extremities thereof upwardly extended and communicating into the boiler through outer portions of the wall thereof, said pipes being of coiled form hav-

ing nested arrangements with each other and having their inner extremities in proximity to each other and upwardly extended to within a central portion of the boiler, and
5 a heater beneath the coils, a steaming head, an operating handle by which the head is supported, and a flexible pipe having connection with the boiler and the head.

11. A boiler having a water supply passage leading thereinto, having an inner upwardly opening and annular shell widened at its lower portion and also having an upwardly opening annular shell of larger diameter than the inner shell having at its
15 lower portion a closed relation to the inner shell and creating between it and the latter an annular space, such shells forming concentric water compartments within the boiler, and the same having passages lead-

ing from the bottom of the outer to the inner compartment, a baffle plate above the open ends of the concentric shells, and a casing outside of and separated from the outer wall of the boiler proper, closed at its top, and depending below the base of the boiler, and heating means within the depending portion of the casing under the boiler, in combination with a steaming head, a flexible pipe connecting such head and boiler, and means for supporting and operating the steaming head.

Signed by us at Springfield, Mass., in presence of two subscribing witnesses.

WAYNE C. ROBERTS.
GEORGE E. CORSER.

Witnesses:

WM. T. BELLOWES,
G. R. DRISCOLL.