Feb. 15, 1927. 1,617,924

A. B. RUSSELL

WALL PAPER REMOVING TOOL

Filed April 30, 1926

Fig. 1.

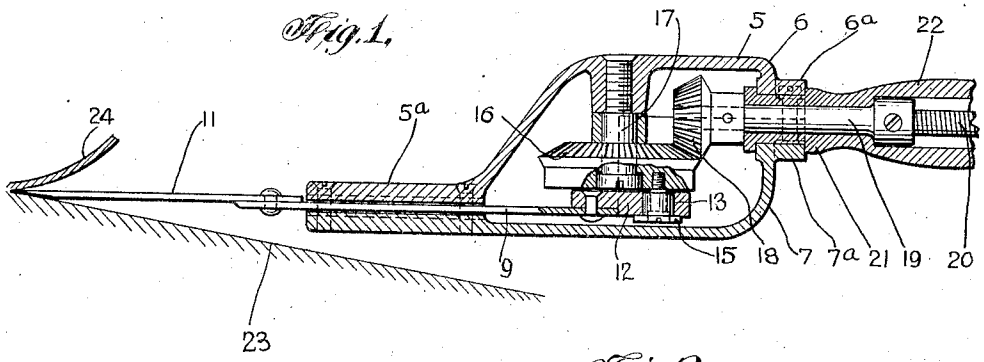


Fig. 2.

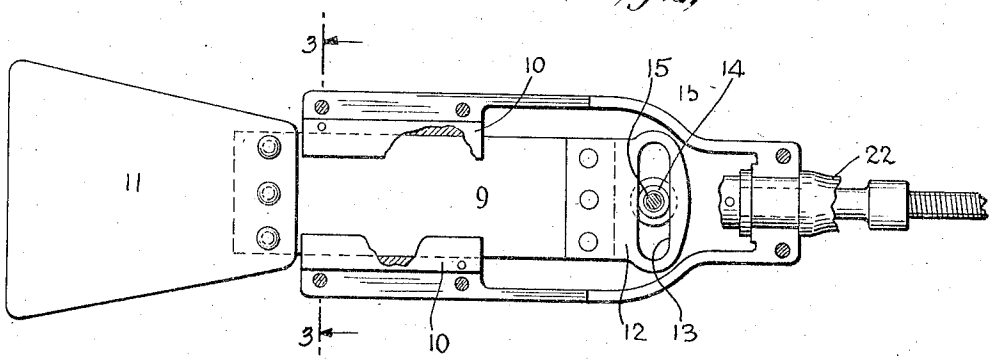


Fig. 3.

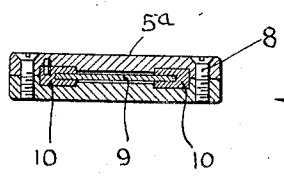
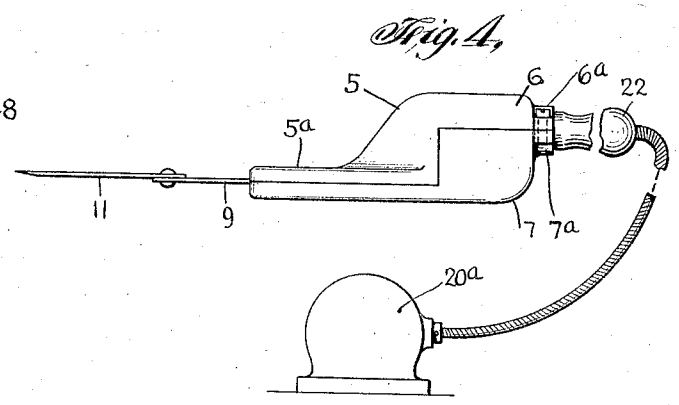


Fig. 4.



INVENTOR

Alvin B. Russell

BY

Howard C. Thompson

ATTORNEY

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UNITED STATES PATENT OFFICE.

ALVIN B. RUSSELL, OF BROOKLYN, NEW YORK.

WALL-PAPER-REMOVING TOOL.

Application filed April 30, 1926. Serial No. 105,879.

This invention relates to tools for use in the removal of wall paper; and the object of the invention is to provide a tool of the class described so constructed as to be light in weight and easy to manipulate by an operator in the removal of paper; a further object being to provide a tool of the class described, the reciprocating blade of which is driven from an electric motor or other power driven rotatable member through a flexible shaft, through gearing and leverage imbedded in the handle or body portion of the tool; and with these and other objects in view, the invention consists in a device of the class and for the purpose specified, which is simple in construction, efficient in use, and which is constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Fig. 1 is a central, longitudinal, sectional view through a tool made according to my invention, with part of the construction broken away.

Fig. 2 is a sectional plan view of the construction shown in Fig. 1 with the cover removed.

Fig. 3 is a partial section on the line 3—3 of Fig. 2; and,

Fig. 4 is a side view of the tool on a reduced scale, and showing the blade in an extended position.

In practice, I provide a tool body portion 5 composed of two parts 6 and 7 of the general shape and form seen in Figs. 1, 2 and 3 of the drawing, screwed or otherwise secured together as seen at 8. The front end of the body 5 is reduced to form a comparatively thin and wide projection 5^a having a passage extending therethrough in which a tool support and operating plunger 9 is movably mounted, the same being supported in channel tracks or guideways 10 disposed at opposite sides of the extension 5^a as clearly seen in Figs. 2 and 3 of the drawing. At 11, I have shown a cutter blade mounted in connection with the outer end of the plunger 9. The inner end of the plunger 9 is riveted or otherwise secured to a block 12 having an elongated aperture 13 traversing the same in which an anti-frictional roller 14 mounted on a stub or screw 15 is mounted for operation, the stub or screw 15 being secured to the lower face of a bevel gear 16 at a predetermined distance from the axis of said gear as seen in Fig. 1 of the drawing, forming of the gear 16 a crank wherein the screw 15 constitutes a crank pin for actuating the plunger 9 to impart reciprocating movement thereto and to the blade 11.

The bevel gear 16 is mounted upon a stub shaft 17 secured to the part 6 of the body 5 and a beveled pinion 18 secured to a coupling link 19 to which the flexible shaft 20 is secured, which shaft serves to place a rotatable shaft or member of an electric motor 20^a, see Fig. 4, or other source of power, in operative connection with the gears 18 and 16 to impart the reciprocating movement to the plunger 9 and blade 11. The motor or power member forms no direct part of my invention, and for this reason is merely diagrammatically illustrated, it being understood that when an electric motor such as 20^a is employed, the same may be supported on a workbench, floor or even strapped to the operator, the body 5 of the tool being carried in the hand and manipulated in the manner of other paper removing or scraping tools.

The coupling link 19 is mounted in a bearing 21 in the enlarged end portion of the body 5 and positioned between the separate parts 6 and 7 thereof, said parts being enlarged at this point as seen at 6^a and 7^a. The bearing 21 is preferably extended to form a handle member 22 enclosing the link 19 and part of the flexible shafting 20. In the use of the tool, one hand may be placed on the handle member 21 and the other on the body portion of the tool in the manipulation thereof.

It will be understood that when the tool is put in operation by a suitable switch provided for this purpose, in the event that an electric motor be used, the tool itself is moved forwardly and backwardly over a wall surface which is indicated at 23 in Fig. 1 of the drawing, in which operation, the blade 11 is reciprocated back and forth at a comparatively high speed to release the paper 24 from the wall surface 23, or the tool may be moved gradually over the wall surface with a steady push thereon and the reciprocating movement of the blade 11 will operate to release the paper from the wall, the desired results being accomplished without any heavy or laborious labor on the part

of the operator, thus rendering the well-known and difficult task, simple, and permitting of the quick removal of wall paper. In the operation of the tool, it will be understood that the same will be held at a slight inclination to the wall, substantially as indicated in Fig. 1 of the drawing.

It will be understood that as the gear 16 is rotated, the crank pin having the anti-friction roller 14 thereon, operates in the elongated aperture 13 to move the lever 9 forwardly and backwardly within the casing or body of the tool. Said pin travels from one end portion of the aperture 13 to the other end portion thereof during a cycle of operation, the plunger 9 and blade 11 being shown in their innermost position in Figs. 1 and 2 of the drawing.

It will be understood that my invention is not necessarily limited to the specific details of construction herein shown and described, nor am I limited to the specific casing construction herein referred to, and further my invention is not necessarily limited to the use of any particular motor power to be transmitted to the gearing employed, and various other changes in and modifications of the construction herein set out may be made within the scope of the appended claims without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A paper removing tool of the class described comprising a body composed of separate parts which when secured together form a housing portion at one end of which is a reduced extension, a member mounted to reciprocate in and guided by the reduced extension of said body, a cutter blade coupled with the protruding end of said member, gears supported within the housing portion and said body and one of said gears being in direct operative connection with said member to impart reciprocating movement thereto, and a flexible shaft coupled with the other of said gears and extending out through said body.

2. A paper removing tool of the class described comprising a body composed of separate parts which when secured together form a housing portion at one end of which is a reduced extension, a member mounted to reciprocate in and guided by the reduced extension of said body, a cutter blade coupled with the protruding end of said member, gears supported within the housing portion and said body and one of said gears being in direct operative connection with said member to impart reciprocating movement thereto, a flexible shaft coupled with the other of said gears and extending out through said body, and channelled guide rails supported in the reduced extension of said body and in which said member is movably mounted.

3. A paper removing tool of the class described comprising a body composed of separate parts which when secured together form a housing portion at one end of which is a reduced extension, a member mounted to reciprocate in and guided by the reduced extension of said body, a cutter blade coupled with the protruding end of said member, gears supported within the housing portion and said body and one of said gears being in direct operative connection with said member to impart reciprocating movement thereto, a flexible shaft coupled with the other of said gears and extending out through said body, channelled guide rails supported in the reduced extension of said body and in which said member is movably mounted, and a tubular handle member coupled with the housing portion of said body, and through which the flexible shaft passes.

In testimony that I claim the foregoing as my invention I have signed my name this 27th day of April, 1926.

ALVIN B. RUSSELL.