

Nov. 17, 1931.

H. E. WATKINS
STEEL WOOL PAD AND HOLDER
Filed Jan. 12, 1929

1,832,068

Fig. 1.

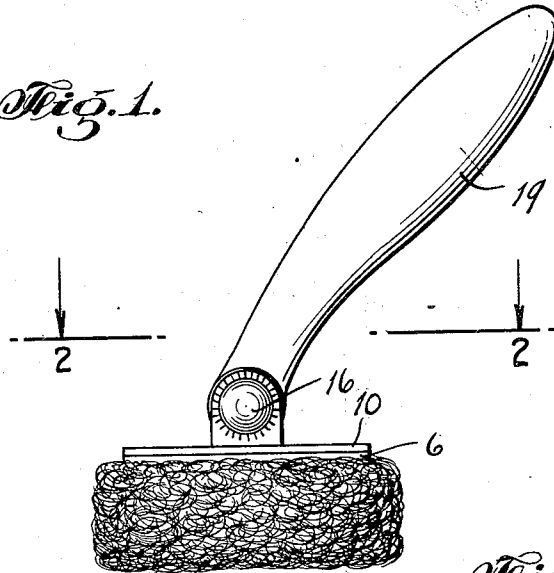


Fig. 2.

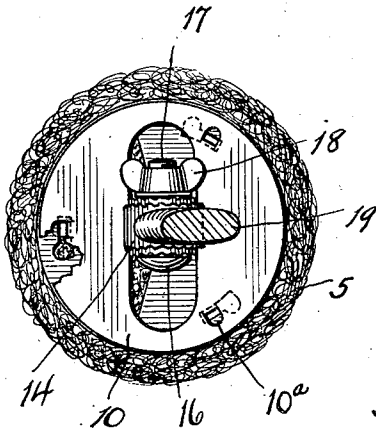


Fig. 3.

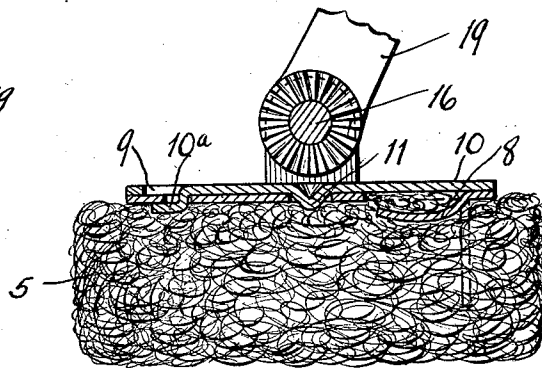


Fig. 4.

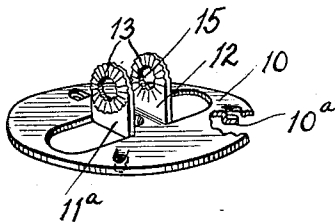
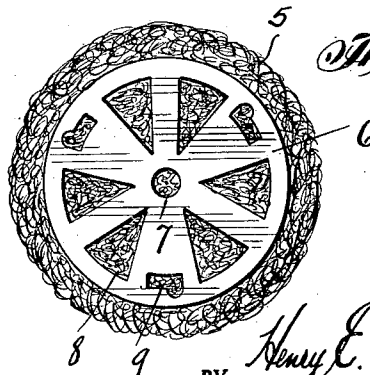


Fig. 5.



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UNITED STATES PATENT OFFICE

HENRY E. WATKINS, OF BRONX, NEW YORK, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE DARLING SPECIALTY CO., A CORPORATION OF DELAWARE

STEEL WOOL PAD AND HOLDER

Application filed January 12, 1929. Serial No. 332,033.

This invention relates to a combined steel wool pad and holder as employed for abrasive operations while cleaning or polishing surfaces.

5 The primary object of my invention is to provide an abrasive pad, such as a steel wool pad associated with means for holding and retaining the same including a handle for manipulating the pad during the cleaning or polishing operation.

10 Specifically my invention relates to a combined steel wool pad and retaining plate constructed and arranged for detachable connection to a handle whereby said pad may be easily replaced and substituted when desired.

To enable others skilled in the art to more fully comprehend the underlying features of my invention, reference is had to the accompanying drawings forming a part of the specification in which

Fig. 1 is a side view illustrating my invention.

Fig. 2 is a view taken on the line 2—2 of Fig. 1.

Fig. 3 is an enlarged view partly in section showing the arrangement of the steel wool clamping plate and detachable handle.

Fig. 4 is a perspective view of a handle attaching plate, and

Fig. 5 is a top plan showing the mineral wool clamping plate or holder.

Referring now to the drawings, 5 designates an abrasive pad preferably of steel wool and commonly employed for cleaning and polishing surfaces. Before the steel wool constituting the pad is placed under compression, I position on the pad a substantially thin, flat plate 6 preferably of tin or other light metal capable of being machine punched or stamped. In the form of the invention shown, a circular plate is employed but it will be understood that any other design of clamping plate may be employed for my purpose. Furthermore, the plate may be of non-metallic material such as paper or cellulose compositions capable of being firmly joined with the strands of the steel wool of the pad.

The plate 6 is cut or stamped to provide a central hole or opening 7 and a series of

concentric, substantially triangular shaped clamping prongs or tongues 8. The number of tongues stamped out of the plate may be varied as manufacturing necessities and assembling equipment require. The plate is also provided with a series of concentric, bayonet locking slots 9 for a purpose presently to appear. In the manufacture of the plate 6, after the triangular shaped prongs or tongues are cut, they are bent at right angles to the body of the plate as shown by the dotted lines in Fig. 3. In assembling the plate with the steel wool pad, they are placed in a compression machine so that when pressure is applied to the said plate and the steel wool, the triangular shaped prongs or tongues will become bent upwardly or distorted in such a way as to grip and clamp the strands of the steel wool between the said prongs or tongues and the plate and compressing some of the strands of steel wool into the openings in the body of the plate as shown in Figure 3 of the drawings. Consequently, the pad and plate constitutes the unitary article of manufacture as sold to the public.

In order to utilize the steel wool pad and plate as assembled, I provide a handle clamping plate 10 having a series of concentric downwardly struck locking tongues 10a constructed and arranged for cooperation with the bayonet slots 9 of the plate 6. The handle clamping plate may be of the same or different material employed in producing the above first mentioned plate. Referring particularly to Fig. 4, it will be noted that the handle clamping plate is provided with a central depression or bead 11 which acts as a pivot and is adapted to enter the hole or opening 7 for the proper rotation of one plate relative to the other for the proper cooperation of the locking tongues with the slots. The body of the handle clamping plate is stamped to provide a pair of vertical, parallel upwardly struck ears 11a, 12, the faces of which are serrated or notched as at 13 for cooperation with the lower end of a handle 14, said handle having a transverse opening adapted to register with the openings 15 in said ears. A transverse locking bolt 16 having a threaded end 17 and a wing nut 18 permits of the assembly

of the handle proper 19 and its vertical adjustment to any desired angle convenient. The handle clamping plate and its handle may of course be modified so that they may be assembled for detachable connection or under certain conditions, integral with each other whereby it may be employed and used with the replaceable pads as above described. While I have referred to and shown a specific means for locking the handle clamping plate to the plate of the steel wool pad, it will be also understood and appreciated by those skilled in the art, that other means may be resorted to for accomplishing the same purpose.

While I have shown and described my invention with some degree of particularity, it will be realized that other modifications and changes may be resorted to under special conditions. I therefore do not wish to be limited and restricted to the exact details shown and described but reserve the right to make such changes and modifications as may fairly fall within the scope of the subject matter now being claimed.

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

An abrasive device comprising a pad of metallic wool, a plate provided with a central opening and a plurality of openings adjacent the outer edge thereof, means securing the pad to the said plate, an upper plate provided with a handle, a central depressed portion and a plurality of depressed tongues, the said central depressed portion engaging the central opening of the first mentioned plate and the depressed tongues extending through the openings adjacent the outer edge of the first mentioned plate and engaging the underside of the first mentioned plate to secure the said plates and the handle member operatively together, the said upper plate being rotatable about the central depressed portion as an axis to move the said plate into and out of locking engagement with the lower plate.

In testimony whereof I affix my signature.

HENRY E. WATKINS.