

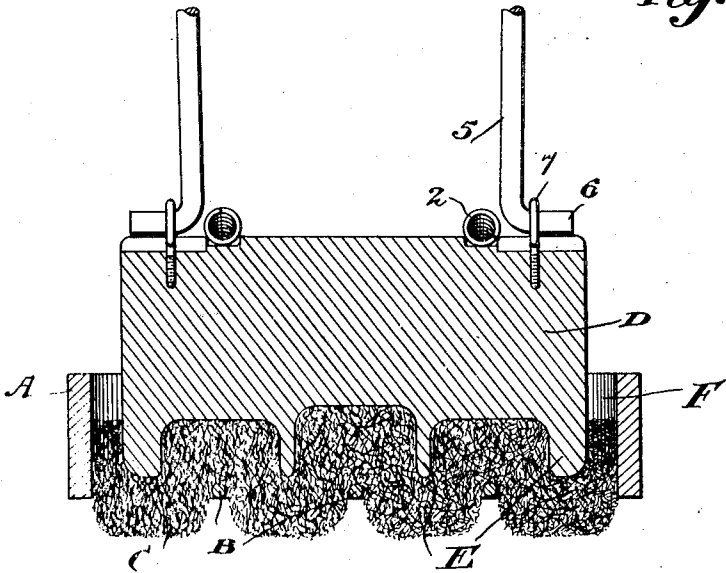
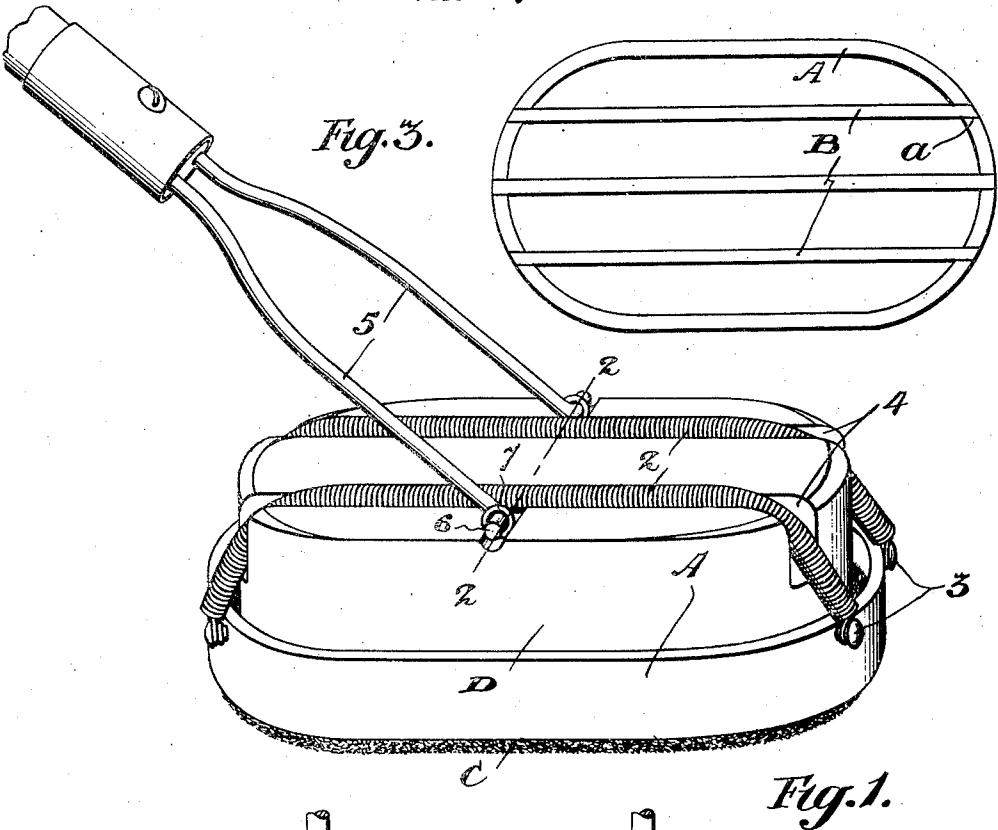
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SURFACE WORKING OR FINISHING DEVICE

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UNITED STATES PATENT OFFICE.

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SURFACE WORKING OR FINISHING DEVICE.

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To all whom it may concern:

Be it known that I, HENRY JAMES STEWART CROSS, a subject of the King of Great Britain, residing in the city of Toronto, county of York, Province of Ontario, Canada, have invented certain new and useful Improvements in Surface Working or Finishing Devices, of which the following is a specification.

My invention relates to improvements in surface-working-or-finishing devices, and the object of my invention is to particularly design means to hold steel wool, or its equivalent, in such manner that this material may be conveniently held to finish or work any given surface, and thereby avoid the necessity of having to handle said steel wool directly with the hand, and in the following specification I shall describe a disclosure within my invention, and what I claim as new will be set forth in the claims forming part of this specification.

Fig. 1 is a perspective view of my preferred form of device. Fig. 2 is a vertical cross section on the line 2—2, Fig. 1, and Fig. 3 is a plan view of the under or bottom side of the lower member of the device.

In the drawings, like characters of reference refer to the same parts.

It is now common in finishing or working surfaces, such as the surface of hardwood floors, and furniture, to use steel wool, and the workman must grasp this wool by his hand, and the result is that small particles of the steel become bedded in the fingers and other parts of the hand, thereby rendering the use of this material objectionable. Now I have devised a device which will hold the steel wool in convenient position for use and without coming in contact with the hand, and which device will maintain said steel wool in working position notwithstanding the fact that this wool will more or less pack under usage.

Although I have disclosed a handle for use with my device, it must be understood clearly that the handle may be omitted; and if a handle be used, the design thereof and means coupling the same to my device, may take many different forms, as will be self-evident to one skilled in the art.

The preferred disclosure comprises a crib embracing a ring-like member A, of the desired height, with the bottom of which is associated a plurality of spaced rods or bars B, which preferably lie in more or less par-

allel relationship, and through the spaces separating the said rods or bars from each other, and from the member A, projects the steel wool or equivalent member in the form of ribs C.

Now it of course is important that the underside of the ring-like member A be held above the surface undergoing working or finishing, and therefore it follows that the ribs C should always extend well below the member A, and in order to maintain these ribs, feeding means embracing a clamp D is held in co-operative relationship with the member A within the same. The underside of the clamp D is provided with a plurality of spaced ribs E projecting therebelow, and these ribs are held in cooperative relationship in respect of the rods or bars B so as to occupy substantially the positions shown in Fig. 2; that is to say, the ribs E will be located in or above the spaces separating the rods or bars B from each other and from the sides of the member A, and the result is that the ribs C will be formed and maintained when the clamp D is placed upon the layer of steel wool placed within the crib and upon the rods or bars B.

It will be observed that the clamp D has a circumferential clearance with the inner side of the member A thus providing an annular space F into which portion of the steel wool extends, thus providing, in effect, a binding edge, so to speak, for the steel wool and so maintain the rib-like form of the wool adjacent the sides of the member A.

The feeding means for the steel wool, besides the clamp D, embraces means to hold the clamp D in co-operative relationship in respect of the ring-like member A and its rods or bars B, in other words, the crib for the steel wool. The preferred means for this purpose embraces a pair of coiled springs 2, the ends of which are anchored by any suitable means, such as studs 3, to the outer side of the ring-like member A. The upper side of the clamp D is provided with a pair of spaced grooves 4 in which the coiled springs 2 normally lie.

These springs will be of sufficient strength to maintain the clamp D in co-operative relationship with the member A.

During use the steel wool in time will become packed, and therefore by reason of the co-operative relationship between the ribs C and rods or bars B, pressure applied so as to move the clamp D further within

the member A will restore these ribs, and it will be observed that the means employed to hold the clamp D in co-operative relationship with the ring-like member A, must substantially maintain these elements in the desired relative positions. The coiled springs 2 may be used, or any mechanical means the equivalent thereof. In reality the clamp D floats within the crib composed of the ring-like member A and the spaced rods or bars B, and since the springs 2 are always under tension, as the abrading or polishing material packs, the clamp D moves further within the said crib, and consequently the ribs C are always kept formed as long as the abrading or polishing material is fit for use. The constant co-action between the elements set forth is essential to the proper working of a tool of this character, and so soon as the clamp D ceases to float, the abrading or polishing material should be removed and replaced by fresh material.

It is essential that the lower edge of the ring A be kept out of contact with the surface undergoing working, and so long as the abrading or polishing material is fit for use, the automatic formation of the ribs C will space the lower edge of the ring A above the surface undergoing working.

It is to be noted that the floating action of the clamp D is substantially equal throughout the length of the tool, and consequently the lower edge of the ring-like member A will be held substantially equidistant at all points above the surface undergoing working. It therefore follows that the ribs C will project substantially the same distance throughout their length beyond the lower edge of the said member A. The advantage derived from using the coiled springs 2 resides in the fact that they can be readily sprung out of and into their associated grooves 4 as the occasion may demand. Furthermore, these springs 2 are attached to the member A and therefore will always be at hand for use.

In the handle disclosed, the lower end thereof comprises resilient members 5 the ends 6 of which are held in eyes 7 carried by the clamp D. Obviously these ends must be removed from their associated eyes by drawing the members 5 together, before the springs 2 can be placed in the grooves 4.

Although the crib, and the clamp D, are formed preferably oval-shape, the shape of the device is really immaterial, broadly speaking. But where this device is used in a house, the oval-shape is preferable because an article so shaped can be readily passed into spaces separating articles of furniture in cases where the surface of a hardwood floor is being polished.

Obviously the crib and the feeding means associated therewith already identified, may

be used in association with material other than steel wool or its equivalent, as for example, cotton waste may be used in place of said steel wool for any desired purpose this device can be used to effect.

Obviously a device of this character should be of sufficient weight in itself to avoid the necessity of the user having to press unduly upon the device, and therefore it will be understood by one skilled in the art that this weight may be obtained by making the clamp D of metal, or if made of wood, weighting the same.

The ring-like member A is preferably, though not essentially, made of metal; and the rods or bars B are mounted in the lower edge thereof preferably flush therewith, as shown clearly in Fig. 2. These bars may be mounted in place after any suitable manner, well-known in the art.

While I have described what I consider to be the best embodiment within my invention, it must be understood that the principle thereof may be embodied in many different forms, and I desire not to be limited beyond the requirements of the prior art and the terms of my claims.

What I claim is:

1. A device of the class described comprising a ring-like member; a plurality of longitudinally disposed spaced members associated with the lower side thereof, and extending thereacross; a clamp adapted to extend into said member and provided on its underside with a plurality of spaced ribs located in alignment with the spaces separating said spaced members, thus forming grooves of ample width and depth to hold a supply of suitable flexible material, said ribs adapted to exert pressure on portions of said material to force the same in the form of flexible ribs between and below the said spaced members, and means associated with said ring-like member and said clamp to maintain pressure of said clamp upon said flexible material, so that a supply thereof will be passed out of each of said grooves at each side of the said spaced members to replenish said flexible ribs.

2. A device of the class described comprising a ring-like member; a plurality of longitudinally disposed spaced members associated with the lower side thereof, and extending thereacross; a clamp adapted to extend into said member and provided on its upper side with a pair of spaced grooves and on its underside with a plurality of spaced ribs located in alignment with the spaces separating said spaced members, thus forming grooves of ample width and depth to hold a supply of suitable flexible material, said ribs adapted to exert pressure on portions of said material to force the same in the form of flexible ribs between and below the said spaced members, and a pair

of contracting coiled springs coupled at each end to said ring-like member and adapted each to rest in one of said spaced grooves, to maintain pressure of said clamp upon said flexible material, so that a supply thereof will be passed out of each of said grooves at each side of the said spaced members to replenish said flexible ribs.

3. A device of the class described comprising a ring-like member; a plurality of longitudinally disposed spaced members carried by the lower side thereof and extending thereacross; a pressure member adapted to extend into said member and spaced apart therefrom at all portions of its sides, and provided on its underside with a plurality of grooves of ample width and depth, the walls of said grooves forming ribs which lie substantially in the same direction as said spaced members, said pressure member adapted to be located above said spaced members with its ribs located

substantially centrally of the spaces separating said spaced members, the outer ribs of said pressure member being spaced apart laterally and longitudinally from said ring-like member, said pressure member lying upon a suitable flexible material, and contracting means co-acting with the supporting means for said spaced members and said pressure member and adapted to subject said pressure member to a continuous pressure so that the ribs thereof will force portions of said flexible material between the spaces separating said spaced members, a portion of said flexible material being located in the space between said ring-like member and said pressure member, thus forming flexible working ribs, the said pressure passing material from said grooves at each side of said spaced members to replenish said flexible working ribs as the same become broken down through work.

HENRY JAMES STEWART CROSS.