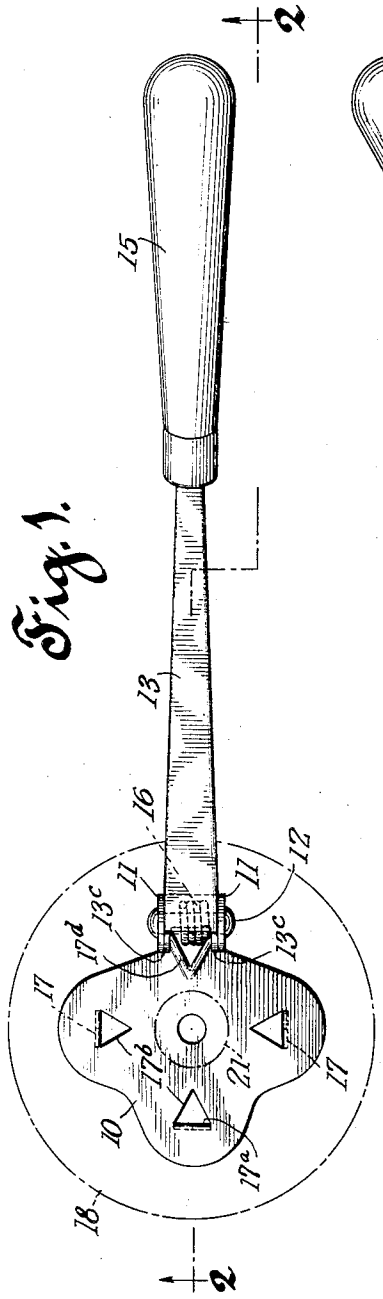
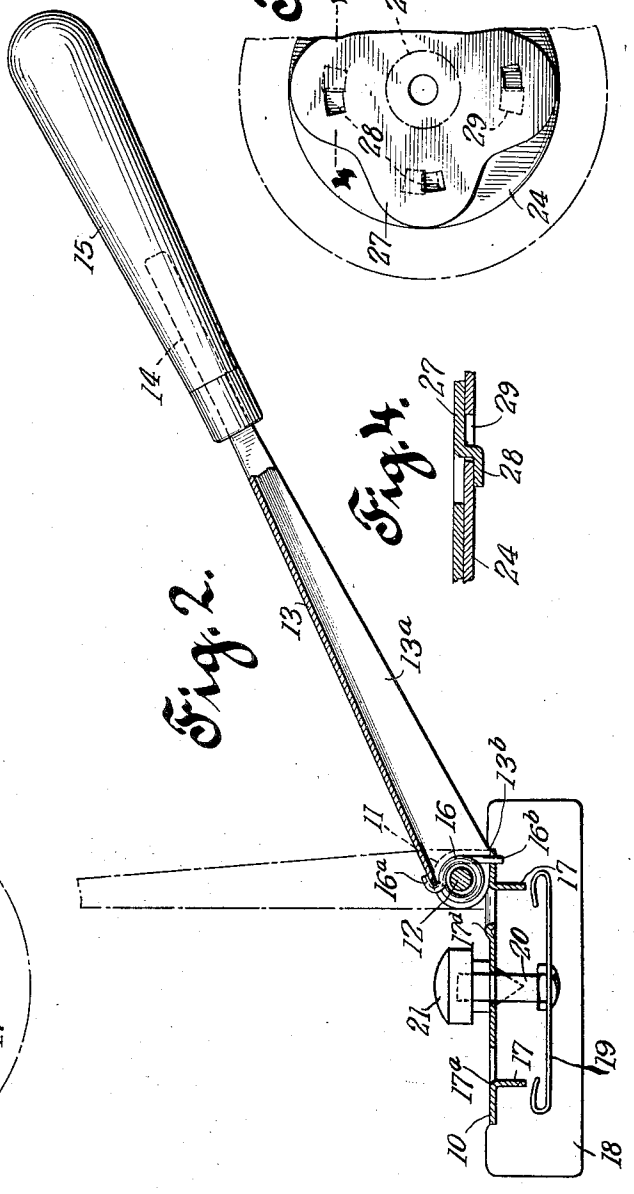
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SCRAPING TOOL HANDLE

Filed June 15, 1929





INVENTOR

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SCRAPING TOOL HANDLE

Application filed June 15, 1929. Serial No. 371,246.

This invention relates to improvements in scraping tool handles, more specifically for scrapers with removable or exchangeable scraping media.

This invention relates to steel wool scrapers such as are used for household purposes, for cleaning pots, pans, kettles and so forth.

It will however, become evident from the description that the application of this invention is not limited to the steel wool which is assumed as an ordinary example of a scraping medium, a great many other substances may be substituted, and the application will cover various industrial or more general usages: cleaning, scraping, removing old paint, polishing, scratching of plaster walls, etc.

This invention aims especially, at various improvements in the construction of similar scraping tools for which former application for U. S. patent, submitted by the applicant, is presently pending under Serial Number 370,446 filed June 12, 1929, and while therefore the different general objects of this invention are in the main identical with those of the prototypes, there are a few specific objects to be mentioned in connection with the present improvements.

The primary specific object is to provide a scraping tool with a detachable handle of simple and inexpensive construction which is easily removable.

The second object is to procure a connection between the part to be rigidly attached to the scraping medium and the handle, which is resilient and, though pliable and yielding to manual strain, automatically tends to restore the handle into a certain relative position to the operating surface when not under strain.

The third object is to construct the various parts of such peculiar shape, that although they can be manufactured in an inexpensive way, they will, where necessary, display maximum strength in proportion to the material employed.

Other objects in compass with the above noted will become evident from the present description.

With these objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter described and illustrated in the accompanying drawing in which:—

Figure 1 is a top view of the handle and the top shield of the scraping tool.

Figure 2 is a sectional view along the line 2—2 of Fig. 1. The scraping medium, i. e. the tuft of steel wool, the clamping parts, and the tightening screw, being elements already fully described and detailed in the former application, as mentioned, and forming no novel parts of present claims, are indicated by dotted lines. Also the eventual position of the handle when manually bent against the strain of the pivot spring is shown in dot-and-dash-lines.

Figure 3 shows a modification of the top shield construction.

Figure 4 is a partial section along the line 4—4 on Figure 3 on an enlarged scale.

The flat top shield or outer clamping plate, which is pressed against the scraping medium by means afterwards pointed out, is designated by the numeral 10. This shield is cut out to form a rearwardly and upwardly projecting fork which is joined to the handle and is provided with two upright half-round lugs 11 (Fig. 1).

The handle itself consists of the haft 15 and the stem 13. The latter is formed of a flat piece of sheet metal bent into a channel form. The two downwardly extending legs of the channel-shaped section are indicated by 13*a*. They increase in width toward the point where the stem is pivoted to the top shield, so that near the bearing point the handle has its greatest strength. The extreme ends of the legs form here two lugs 13*c* corresponding and fitting in between the aforesaid shield lugs 11, and the two pairs are perforated in alignment to receive a pivot 12, riveted over at each end, so as to form a close fitting, yet rotatable joint between the shield and the handle.

At 13*b* the legs of the channel 13 are shaped with an obtuse angle, so as to form a limit stop for the handle.

A spiral spring 16 is wound around the pivot in such way that one free end 16*b* is

held part in a pinhole formed for this purpose through the rear end of the shield 10, while the other end 16*a*, is clamped over the top of 13, which forms the back of the channel, as described.

The spring is strained in such a way that it aims to turn the handle into the same horizontal plane as the top shield in which direction it is limited by the stops 13*b*. The upper tapered and reduced end of the stem is compressed into a rounded form 14 and fixedly inserted into the haft 15.

The shield 10 is punched out at four places, diametrically and equally distanced from its center, at 90° from each other. The punching forms a triangular lobe or barb 17, cutting two sides of the lobe, 17*b*—17*b* and bending the cut-out lobe downwards around its third edge 17*a*. In this way three triangular barbs are formed which are adapted to take a grip on the compressed steel wool or whatever substitute may be chosen for it, below the top shield.

The two free edges 17*d* (Fig. 2) of the fourth cut-out, near the handle, are buckled up and in this way form a reinforcement of the shield, where it is most needed.

The center of the shield is drilled to receive the screw 20, which element, and the other accessory parts, shown dotted, are described in the former application and will only be briefly referred to. Between the inner clamping plate or disk 19 and the top shield 10 the steel wool 18, consisting of a round pad, placed underneath the disk and folded tightly over the serrated flange 23 and between the barbs 17 and the inner concave portion of 19, is clamped tightly by means of the screw 20 and the tightening nut 21.

It is obvious from the former description that the handle 13 can manually be placed at right angles to the shield and the steel wool pad, so that, when the scraper tool is inserted into a cylindrical vessel of small diameter and considerable depth, for instance a deep pot, the padded portion can be pressed flat against the bottom, the spring tending to keep it evenly and forcibly in touch with it, irrespectively of the irregular sideward movements of the handle.

Figure 3 shows a modification of the top shield. In this combination it is supposed that the clamping of the steel wool is accomplished in the manner described in the former application, i. e. by the clamping screw 20 with nut 21, the bottom disk 19 (not shown) and a top disk 24. The top shield 27 in this case is therefore independently removable and is attached to the top disk 24 by three catches 28 (Fig. 4) which enter into slots 29 of the top disk where they are screwed in the manner of a bayonet joint by turning the shield a trifle in relation to the disk, so as to bring the catches underneath the disk. The lobes forming the catches are punched out of the shield and bent downwards and forwards again with an alternate kink, as Fig. 4 shows.

Various minor changes in the form, proportion and details of construction may be made without departing from the principles of the invention, and its scope has therefore to be judged not so much according to the drawing as to what is claimed as novel.

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

1. In a device of the character described, an outer clamping plate, an inner clamping plate detachably connected to said outer clamping plate and spaced from the latter, a pad of pliable scraping material clamped between said inner and outer clamping plates, projecting ears on one edge of said outer clamping plate, a handle pivotally connected to said ears, an abutment surface on said handle cooperating with said outer clamping plate for maintaining said handle substantially at an angle to said outer clamping plate, and a spring holding the abutment surface against the outer clamping plate.

2. In a device of the character described, an outer clamping plate, an inner clamping plate detachably connected to said outer clamping plate and spaced from the latter, a pad of pliable scraping material clamped between said inner and outer clamping plates, a plurality of downwardly projecting barbs integral with said outer clamping plate and extending into said pad of scraping material to prevent the latter from shifting laterally, a handle pivotally connected to said outer clamping plate, an abutment surface on said handle cooperating with said outer clamping plate for preventing the handle from moving downwardly into a position parallel to said outer clamping plate, and a spring holding the abutment surface against the outer clamping plate.

SIDNEY M. BOOKMAN.