To all whom it may concern:

Be it known that I, HENRY A. HAYDEN, a citizen of the United States, and resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Cleaning and Polishing Implements, of which the following is a specification.

This invention relates broadly to the provision of a novel rubbing, scrubbing or wiping implement. Each of the embodiments thereof herein disclosed, being primarily designed for cleaning windows, includes essentially, first, a compressible and preferably only partially anchored mass of working material, second, a clutching or gripping and rigidifying member therefor, adapted not only to be effectually handled as the result of manually directly grasping the same but also adapted to carry a conformation or means for cooperation with a detachable and preferably elongated handle, and third, a means or a plurality of means functioning in a novel and valuable manner to anchor firmly and predeterminedly within said member said mass even though the last, as would in certain cases be preferable, consists of a collection of waste material, as cotton waste, chamois scrap or the like.

Other objects and aims of the invention, more or less broad than those stated above, together with the advantages inherent, will be in part obvious and in part specifically referred to in the course of the following description of the elements, combinations, arrangements of parts and applications of principles constituting the invention; and the scope of protection contemplated will appear from the claims.

Referring now to the accompanying drawings, which is to be taken as a part of this specification and wherein is shown a type of cleaning implement coming within the scope of the invention, as well as other similar types: Figure 1 is a view in perspective, showing one of the embodiments of the invention as at present preferred; Fig. 2 is a vertical sectional view, taken on the line 2—2 of Fig. 1; Fig. 3 is a horizontal sectional view, partially broken away, taken on the line 3—3 of Fig. 2; Fig. 4 is a view similar to Fig. 3, but taken on the line 4—4 of Fig. 2; Fig. 5 is a detail perspective view hereinafter explained; Fig. 6 is a view similar to Fig. 1, but partially broken away, showing another of the embodiments of the invention as at present preferred; Fig. 7 is a view similar to Fig. 6, but of still another of such embodiments; and Fig. 8 is a view similar to Fig. 6, but of still another of such embodiments.

Similar reference characters refer to similar parts throughout the several views of the drawings.

Referring now particularly to the details of construction shown in Figs. 1 to 5 inclusive, the reference numeral 9 represents a unitary sheet of material, preferably thick sheet metal, conforming as indicated.

Nested in the upper portion of the conformed sheet, which last may hereinafter be referred to as the rigidifying member 9, are a pair of substantially similar, side-wisely arranged, wall-members 10, each provided with means, as the "nutmeg-grater" protuberances shown, adapted to engage with portions of the mass 11 of cleaning material. This mass is throughout the drawings illustratively disclosed as consisting of a collection of that waste product, not heretofore utilizable and hence a drug on the market, known as chamois scrap; and said mass is here additionally restrained in its appointed anchorage by means of the presence of the edge-serrations 12 formed on rigidifying member 9 as best shown in Figs. 2 and 4.

Rigidifying member 9 and wall-members 10 are bonded together by means of the rivets 13. And said members are apertured as shown clearly in Fig. 4 (how many of such apertures are preferably present being indicated by the showing of Fig. 1), so that the selected plurality of substantially W-shaped staples 14 (there being present here three thereof) may be applied as shown in Figs. 1 and 4, the inner legs of the W passing bodily transversely of the mass and the outer legs of the W being finally inlent to become harmlessly projecting within, and additionally anchorably inserted within, said mass; from which it will instantly be seen, that while said staples not only securely embed the mass within its rigidifying member 9 but also serve as strut-pieces to lend strength to the rigidifying structure itself, the presence of said staples will in no manner bring about a marring result upon the surface cleaned, especially since the portion of the mass which predeterminedly protrudes below member 9 is fluffed.
or spread out beyond the confines of said member.

Deferring until the next paragraph a description of Fig. 5, the construction therein indicated, it may be now stated, however, being applicable and now deemed preferable in connection, not only with the embodiment just partially described, but also with the other embodiments shown in the drawing, attention is called to the fact that obviously the embodiment of Fig. 1, on account of its exceptionally sturdy and enduring nature, is exceptionally well-qualified to be used as a floor-scrubbing brush having many new and novel advantages. I have tested such embodiment for this purpose, and have found, especially with the mass 11 constituted of a collection of sponge scrap, which scrap also heretofore has had no real or important uses, that said embodiment has been remarkably efficient and, comparatively speaking, indestructible.

Fig. 5 shows how said mass 11 may preliminarily be given that cohesion into a single group (as in Figs. 6, 7 and 8) or into a pair of groups (as in Fig. 1), necessary or desirable from the standpoint of the maximum ease of assembly and final efficiency of construction and operation. A plurality of rough sub-collections 11a are, to this end, joined together by means preferably of a flexible wire 15, as illustrated in said Fig. 5. The presence of this wire, in connection with the embodiment above-described, is indicated at 15 in Fig. 1.

Member 9, as shown best in Figs. 1 and 2, has two portions 9a thereof punched inwardly to establish the oppositely located apertures (as in Fig. 1), necessary or desirable from the standpoint of the maximum ease of assembly and final efficiency of construction and operation. A plurality of serve two important functions, to wit, (a) they cooperate with ledges 9b to prevent portions of the mass 11 from entering the space above said lugs or portions 9a, and (b) they establish retaining elements, perhaps auxiliary to others obviously employable, for the quarter-dowels 17. As to the dowels last-mentioned, each of them, as indicated from the broken-line showing of the adjacent one in Fig. 1, is arranged overlappingly of an aperture 16; and each of them, as shown in Fig. 2, is provided with a well 17a that, when its dowel is anchored or secured in place, has its open top registering with the aperture which said dowel overlaps.

Examine now particularly Fig. 6. The reference numeral 9 here again represents a unitary sheet-metal rigidifying member, but of slightly a different configuration than that shown in Fig. 1. There are also present a mass of suitable material 11, a plurality of bonding and additionally rigidifying rivets 12, and a plurality of W-shaped staples 14. A pair of transversely registering apertures 16 (similar to apertures 16 of Fig. 1) are formed in said member 9 of Fig. 6 as shown; but associated with said apertures of said Fig. 6 is merely here a single dowel 18 provided with a pair of alined and oppositely extending wells 19 as disclosed in broken lines in said Fig. 6.

A detailed description of the subject-matters of Figs. 7 and 8 should not be necessary, or even desirable in the light of the requirements of brevity. As to these figures, it may be stated, however, that, in each figure, one of the three groups of masses 11 (since these embodiments particularly are intended primarily for window cleaning) one of said masses would preferably consist of sponge-scrap, for cleaning, another would consist of cotton-waste, for wiping and drying, and the other would consist of chamois-scrap, for final drying and polishing. It will be noted that in the embodiments being discussed in this paragraph a plurality of rivets 13, a plurality of W-shaped staples 14, and a plurality of registering pairs of apertures 16 are shown as preferably present.

As to the application of auxiliary handle to any of these embodiments of this invention, each of them is of course intended to be used in connection with such a handle,—a handle, too, that when it is attached to either of the present embodiments is pivotally connected therewith (and in this connection attention is again directed to the presence of the dowel-members aforesaid, so that a re-appreciation of their value and purpose may be had). The only feature of this handle which need be mentioned herein is the provision of a pair of endplates or a single such member, which carries two end-portions or hook-lengths that are arranged in longitudinal alinement along a line preferably perpendicular to the axis or line of extension of the handle proper by which such member or pair of members is carried, the free ends of these hook-lengths being directed toward each other and predeterminedly spaced and preferably resiliently movable toward or away from each other. These hook-lengths are intended to be inserted within the apertures 16. And in accordance with the provisions of Rule 43 of the Rules of Practice in the United States Patent Office, it is now stated that said handle and its features as just described are more fully disclosed and claimed in my certain application for United States Letters Patent covering improvements in handles and now pending under Serial No. 27,496 (Series of 1915).

Inasmuch as many changes could be made in the above construction, and many apparently widely different embodiments could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in
the accompanying drawing shall be interpreted as illustrative and not in a limiting sense. It is also to be understood that the language used in the following claims is intended to cover all the generic and specific features of the invention herein described and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

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

1. In a device of the kind described, in combination, a unitary trough-like member having impunched portions establishing inturned shelves in opposite sides thereof and at the same time establishing a pair of apertures in said member which are alined transversely of the said member, and an anchored collection of scraps presenting a wearing surface protuberant from said member and supported within said member between said shelves and the open top of said member.

2. In a device of the kind described, in combination, a backing including a pair of elongated side walls, an intermediate wall extending parallelly with said side walls, and a collection of scraps presenting a wearing surface protuberant from the backing, each of said side walls carrying a series of inturned edge serrations and certain of said walls having stamped integrally therefrom clusters of "nutmeg-grater" elements whereby said serrations and said elements cooperate in restraining from disintegration said collection.

3. In a device of the kind described, in combination, a backing including a pair of elongated side walls, an intermediate wall extending parallelly with said side walls, and a collection of scraps presenting a wearing surface protuberant from the backing, said side walls having impunched portions establishing inturned shelves and at the same time establishing a pair of apertures in said backing which are alined transversely of the latter, and said shelves acting as baffles to prevent scraps from overlapping said apertures.

4. In a device of the kind described, in combination, a backing including a pair of elongated side walls, an intermediate wall extending parallelly with said side walls, a collection of scrap presenting a wearing surface protuberant from the backing, said side walls having impunched portions establishing inturned shelves and at the same time establishing a pair of apertures in said backing which are alined transversely of the latter, and a plurality of stiffening rods located above said collection one rod between said intermediate wall and one side wall and the other rod between said intermediate wall and the other side wall and each rod provided with a recess opening into one of said apertures.

5. In a device of the class described, in combination, a longitudinal channel member, a longitudinal collection of scraps anchored in said channel member, said collection including a plurality of alined substantially columnar sub-collections, and a flexible wire wound about the middle of each columnar sub-collection to establish the same and at the same time to establish said sub-collection in the alignment aforesaid.


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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."