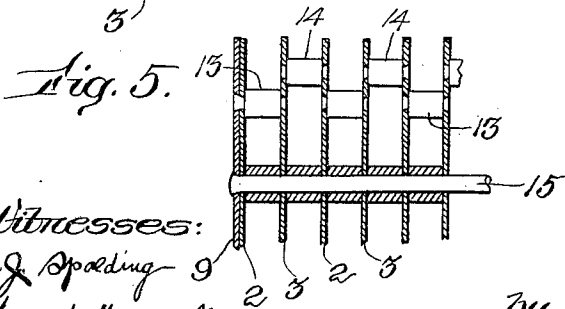
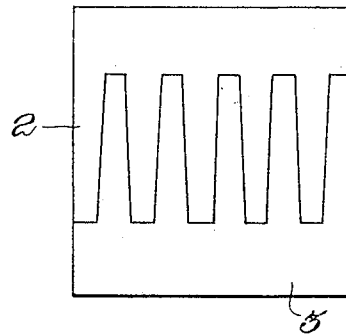
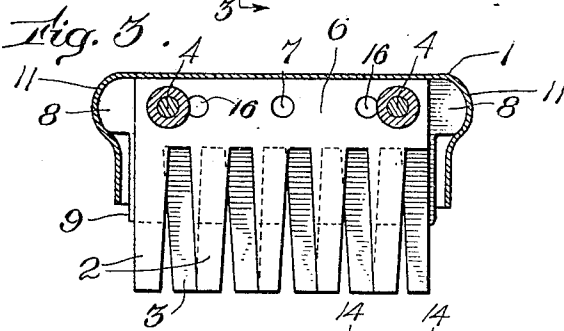
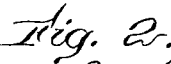


944,009.

Fig. 1.



Inventor:
Gilbert C. Bemis,
by Geo. H. Maxwell,
Attorney.

UNITED STATES PATENT OFFICE.

GILBERT C. BEMIS, OF LYNN, MASSACHUSETTS, ASSIGNOR TO WORCESTER BRUSH & SCRAPER COMPANY, OF WORCESTER, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

BUTCHER'S-BLOCK SCRAPER.

944,009.

Specification of Letters Patent.

Patented Dec. 21, 1909.

Application filed May 26, 1909. Serial No. 498,471.

To all whom it may concern:

Be it known that I, GILBERT C. BEMIS, a citizen of the United States, and resident of Lynn, in the county of Essex and State of Massachusetts, have invented an Improvement in Butcher's-Block Scrapers, of which the following description, in connection with the accompanying drawings, is a specification, like numerals on the drawings representing like parts.

My invention is a scraper capable of general use but particularly intended for cleaning butchers' blocks, and to this end, among its specially advantageous features, are that it is made entirely of metal and is entirely open so that it can be perfectly cleaned and sterilized by boiling, or holding it under a hot water spigot, it is exceedingly rigid, and is provided with special means for facilitating the grasping and manipulating thereof with the hand or hands. Moreover my invention provides an exceedingly economical and inexpensive construction.

Among the features which render the brush rigid and durable, aside from the fact already mentioned that it is made entirely of metal, are that the brush comprises a series of sections each containing a plurality of spring teeth integrally united, the teeth are larger at the base, or in other words, are made tapering and more springy toward their free ends, thereby securing strength and also additional springiness at the working end, which tends to prevent breaking and adds life to the brush, the teeth are arranged in successive sections so as to alternate longitudinally and are so stamped and constructed that they are necessarily even at their scraping ends, thereby keeping the block smooth and even, the base ends of the teeth and sections are housed by a removable cover which overhangs and serves the double purpose of bracing the brush and giving a firm and convenient hand-hold, end stiffeners are provided preferably attached directly and permanently to the article.

The constructional details and further advantages of the construction and use of my invention will appear more fully in the course of the following description considered with reference to the accompanying drawings, in which I have shown a preferred embodiment of the invention.

In the drawings, Figure 1 represents the brush in side elevation, partly broken away

for clearness of illustration; Fig. 2 is a bottom plan view thereof; Fig. 3 is a cross sectional view on the line 3—3 Fig. 2; Fig. 4 shows the relative arrangement of the scraper teeth and their arrangement for stamping; and Fig. 5 is a horizontal sectional detail of a modified construction.

Bearing in mind that in a tool which is to be used in connection with meat it is essential that the tool shall be clean and hygienic at all times, and I have succeeded in securing the desired rigidity and openness of construction entirely free from corners and lodging places which would accumulate foul matter, by providing a practically two-part brush consisting of a shell-like cover 1 which is simply sprung down over the rest of the brush and readily removed therefrom, and a brush body comprising essentially sections 2, 3, and skeleton holding means therefor, preferably consisting of rods 4 and spacing sleeves or ferrules 5. By reason of this construction the brush can be cleaned quickly and fully simply by slipping off the cover and holding the brush under a spigot or swashing it back and forth in a bucket of water, inasmuch as the water is free to pass through the brush in direct forcible contact with every point of the entire structure inasmuch as there are no angular surfaces to catch and hold scrapings against the impact of the water. As is most readily seen in Fig. 3, the teeth of the successive sections alternate in position so that the teeth of the section 3 occupy the spaces between the teeth of the section 2. Also the teeth are tapering or larger at their upper or base ends, thereby avoiding the tendency common in metal brushes to crystallize and break adjacent their base. By making the teeth tapering the bending point is lowered nearer to the scraping end. Moreover this shape of tooth gives additional springiness at the scraping end, which increases the efficiency besides adding to the life of the brush. At their upper ends the teeth are united integrally by a transverse plate portion 6 punched to receive transverse rods 4, as best shown in Figs. 2, 3. The successive plates 2, 3, (alternating as explained) are secured at their upper opposite corners by the rods 4 and held unyieldingly apart by sleeves 5 as clearly shown in Figs. 1 and 2. Preferably also a central hole 7 is provided for receiving a similar rod and sleeves down the mid-

dle of the brush when the latter is extra long or needs special bracing, but for ordinary use the preferred construction as shown in Figs. 1, 2 and 3, is sufficient. At intervals throughout the length of the brush I provide extension plates 8, which extend beyond the adjacent ends of the teeth sections, and at the opposite ends of the brush I preferably provide depending end-stiffeners 9 as best shown in Figs. 1 and 3, said stiffeners being for convenience formed as a part of the extension plates 8. When all the parts are assembled as described, the bolts 4 are riveted or otherwise secured at their opposite ends so as to hold the assembled parts relatively immovable.

The cover 1 is made of stiff sheet metal having its side edges bent downwardly at 10 to constitute flanges, preferably about as deep as the width of the extension members 8. These flanges are so cut and bent that they are slightly inclined or bulged outwardly at 11 at the longitudinal sides, and being made of spring metal they hold themselves automatically in place when shoved over the rounded ends of the members 8 and yet are capable of springing sufficiently to permit the cover to be pulled off from the body of the brush. The overhanging or bulging construction provided by the cover and the cooperating extensions 8 gives an exceedingly firm and convenient hand-hold for the grasping of the brush by the hand. The described construction keeps the cover side stiff. Further rigidity is secured by having the end-stiffeners preferably riveted directly to the body of the brush across the end and extending downwardly a short distance. End movement of the cover is prevented and further rigidity secured by stops or stop-stiffeners 12 riveted to the underside of the top or horizontal part of the cover, so placed as to bind against the ends of the brush part. The parts 12 are preferably set in slightly from the ends of the cover.

While the primary object of having the teeth alternate as shown in Fig. 3 is to insure the uniform and complete scraping of the butcher's block, it also facilitates the economical stamping out of the sections as clearly shown in Fig. 4, where it will be seen that the teeth interlock so as to utilize all the metal of the plate from which they are stamped. By using stamped plates held together by rods through the similarly punched holes, the result is that the scraping ends of the teeth are absolutely level or all terminate in one and the same plane, so that they scrape the block smooth and even. This is of much practical importance.

While I prefer the construction thus far described, I wish it understood that my invention is capable of various modifications without departing from the spirit and scope thereof. For instance, in Fig. 5 I have

shown instead of the side frame rods, the successive sections riveted together in pairs by shouldered rivets 13, 14, and rod 15 passing through the middle. This is a preferable construction for some purposes, especially if the brush is to be long or extra large, and accordingly I commonly stamp the plates with the requisite holes 16 therefor, as indicated in Fig. 3.

In use, the brush is conveniently and firmly grasped by the cover, the fingers and thumb being free to bend around the overhanging or rounded edges of said cover and grasp against the depending flanges thereof below said rounded or bulging portion. By reason of the special construction of the teeth and sections the teeth all terminate in one and the same plane and stand staggered with relation to each other longitudinally of the brush, so that the block is readily kept clean, even, and smooth thereby and the brush readily ground or sharpened. After each scraping of the block the cover is sprung off from the brush proper and the brush is held under the hot water spigot thereby instantly cleaning and sterilizing the same as the water is free to strike against each part of the brush. The round sleeve-like surfaces 5 prevent any clinging of material thereto as the water drives the scrapings through the open work of the frame.

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

1. A block scraper, comprising a series of resilient teeth spaced apart and rigidly held together, holding means therefor, and a removable cover having depending spring-engaging portions for springing into holding engagement with the scraper over the upper ends of said resilient teeth, said cover having outwardly bulging longitudinal portions adjacent the opposite upper corners of the scraper, and the latter having projecting portions adapted to fit snugly into said bulging portions.

2. A block scraper, composed of a plurality of separate sections braced apart, each section comprising a series of separate teeth integrally united at their base by a plate-like portion of the section, said teeth being thin, freely resilient, extending upwardly about two-thirds the depth of the section, and all the teeth of all the sections terminating in wide transverse scraping ends all lying in one and the same plane.

3. A block scraper, composed of a plurality of separate sections braced apart, and provided lengthwise of the scraper with hand-hold means for being moved longitudinally, each section comprising a series of separate teeth integrally united at their base by a plate-like portion of the section extending transversely of the length of the scraper, said teeth being uniform in thick-

ness lengthwise, long and tapered, larger at the base where they join said plate-like portion, and composed of spring material having their greatest resiliency adjacent their free ends, the latter being square and lying all in one level for simultaneously cutting and scraping a butcher's block to a level surface.

4. A block scraper, having longitudinal hand holds along its opposite sides to be grasped by the hand for pulling and pushing the scraper lengthwise to cut and scrape a butcher's block to a level surface, a series of parallel plate-like sections braced apart and extending transversely of said scraper and hand holds, each section containing similar resilient teeth extending upwardly for the greater part of the height of said section and having square-ended cutting extremities all lying in one and the same horizontal plane, the successive sections having their said square cutting ends arranged in staggered order with relation to each other viewing the scraper lengthwise, whereby when the scraper is pulled or pushed in the direction of its hand holds, the ends of all of said teeth unite in scraping the entire area simultaneously to an even surface.

5. A block scraper, composed of a plurality of separate sections braced apart, each section comprising a series of separate teeth integrally united at their base by a plate-like portion of the section, said teeth being longer than the depth of the plate-like portion, tapered, larger at the base where they join said plate-like portion, uniform in thickness throughout their length, and having wide transverse cutting ends, all lying in one and the same plane, and a removable cover having transverse end-stiffeners spaced apart to prevent relative longitudinal movement of the cover and scraper while permitting the cover to be crowded straight down upon the top of the scraper, said cover having depending spring edges shaped to engage and clamp over the longitudinal sides of the scraper for holding the brush in place.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

GILBERT C. BEMIS.

Witnesses:

M. J. SPALDING,
EDWARD MAXWELL.