

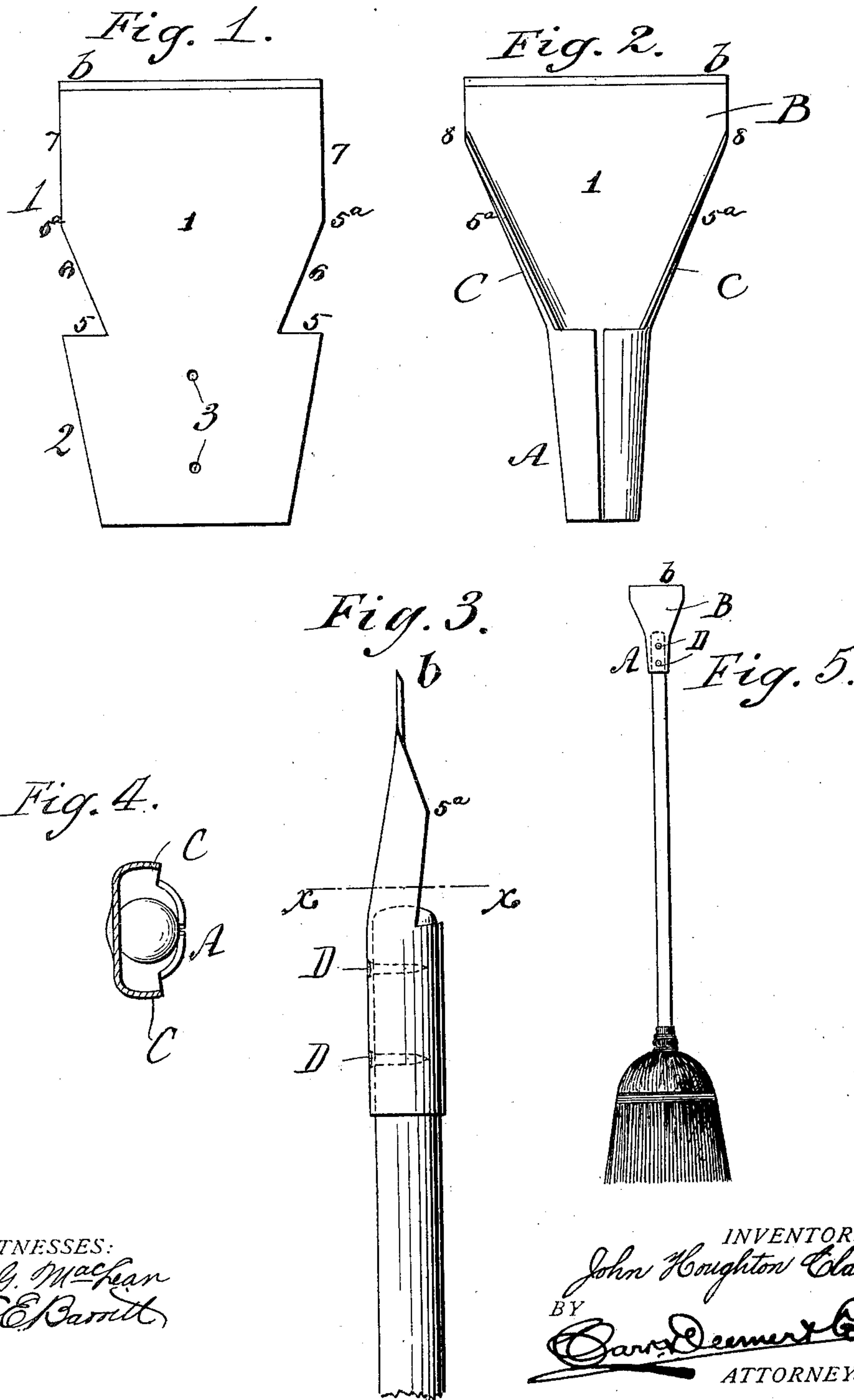
No. 688,160.

Patented Dec. 3, 1901.

J. H. CLARKE.  
SCRAPER.

(Application filed June 15, 1899.)

(No Model.)



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JOHN HOUGHTON CLARKE, OF FRAMINGHAM, MASSACHUSETTS.

## SCRAPER.

SPECIFICATION forming part of Letters Patent No. 688,160, dated December 3, 1901.

Application filed June 15, 1899. Serial No. 720,657. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN HOUGHTON CLARKE, a citizen of the United States, and a resident of Framingham, county of Middlesex, and State of Massachusetts, have invented certain new and useful Improvements in Scrapers, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar characters of reference indicate corresponding parts.

My invention relates to an improved combined ice-chisel, scraper, and shovel attachment for brooms and handles; and its object is to provide a simple, durable, inexpensive, and efficient device of this class adapted to be attached to a broom-handle to be employed as a means for removing ice or other incrustated substance from sidewalks, doorsteps, &c.

The invention will be hereinafter described, and particularly pointed out in the claim.

In the accompanying drawings, forming a part of this specification, Figure 1 is a plan of a blank employed to produce my improved device. Fig. 2 is a front elevation of the device in a finished state. Fig. 3 is a side elevation thereof, showing the same attached to the end of a broom-handle. Fig. 4 is a sectional plan view taken on the line X X of Fig. 3, and Fig. 5 is a rear elevation showing the device connected to a broom.

The scraper is formed from a single piece of sheet metal, preferably steel, and stamped or cut into shape substantially like the blank illustrated in Fig. 1 of the drawings, consisting of the blade portion 1 and the socket portion 2, the latter being provided with apertures 3 for the reception of screws used in fastening the device to a suitable handle. The blank is provided with the shoulders 5 and is cut divergently from the inner corners of the same to a point 5<sup>a</sup> at the outer edges of the blade, leaving a straight perpendicular lower edge 7. When these diverging edges 6 and a portion of the straight edge 7 are bent upwardly, they form triangular strengthening-flanges C, (shown in Figs. 2 and 3,) and the broadest portion of the flange being between the point 5<sup>a</sup> and that part of the blade where the greatest strain is brought to bear, thus giving the blade more strength and rigidity at that part. The two side edges 7 of the

blade are parallel and extend at right angles to the cutting edge *b*. In bending the flanges C only a portion of the edge 7 is turned upwardly to a point 8, as shown in Fig. 2, thus leaving a wide flat projecting chisel or cutting edge which is free of flanges at its ends, so as to permit the edge *b* to be freely sharpened and the free use of the device as a chisel in cutting or chopping. After the socket has been formed the device may be secured to a broom or other handle by two screws D, which engage the openings 3 in the socket and screw into the material comprising the handle.

My invention involves a scraper struck up or otherwise formed of a single piece of sheet metal and comprises the socket to fit on a suitable handle, the wide flat sharp chisel end without side flanges or projections, and the shovel portion extending from the socket to said chisel end and arranged at an angle to the length of the socket and also at an angle to the plane of said chisel end. Said shovel portion tapers in width from the said chisel end to the socket, and the side flanges of the shovel portion taper down to and terminate at the junction between the shovel portion and chisel end. The angle of inclination of the shovel portion is such as to bring the flat chisel end in the plane of the length of the socket, as shown by Fig. 3, whereby the side flanges are highest and of greatest strength at the portion of the scraper subjected to the greatest strain, and the chisel end is located in the direct line of strain with the handle to which the scraper is attached. By reason of the peculiar structure and arrangement as described my scraper can be easily struck up from comparatively thin sheet metal and is of great strength and durability, and by reason of the peculiar structure of the shovel portion in relation to the plane projecting chisel end it can be employed as an ice-chisel to chop and break up thick ice and frozen snow on pavements, steps, &c., as well as a scraper for cleaning off thin ice and snow and throwing the same to one side.

I am aware that scrapers embodying a blade and an integrally-formed socket are not new. I therefore do not claim the broad idea; but I do claim the specific structure as herein shown and described, embodying an exceedingly durable device which will stand consid-



erable strain without liability of bending or breaking the blade.

Having described my invention, what I claim, and desire to secure by Letters Patent, 5 is—

10 A scraper formed from a single blank and composed of the socket to receive a handle, the shovel portion extending from one end of the socket and longitudinally inclined, and the plane flat chisel end *b*, projecting from the shovel portion and arranged in a plane including the central longitudinal axis of said socket, said shovel portion formed

with the inclined side flanges extending from the socket the full length of the shovel portion and terminating at the junction between the shovel portion and said projecting chisel end, substantially as set forth. 15

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 3d day of June, 1899. 20

JOHN HOUGHTON CLARKE.

Witnesses:

SARAH HOUGHTON CLARKE,  
ISABEL CLARKE FERRY.