L. S. STARRETT.

FLOOR SCRAPER.

APPLICATION FILED MAR. 5, 1910.

966,962.

Patented Aug. 9, 1910.

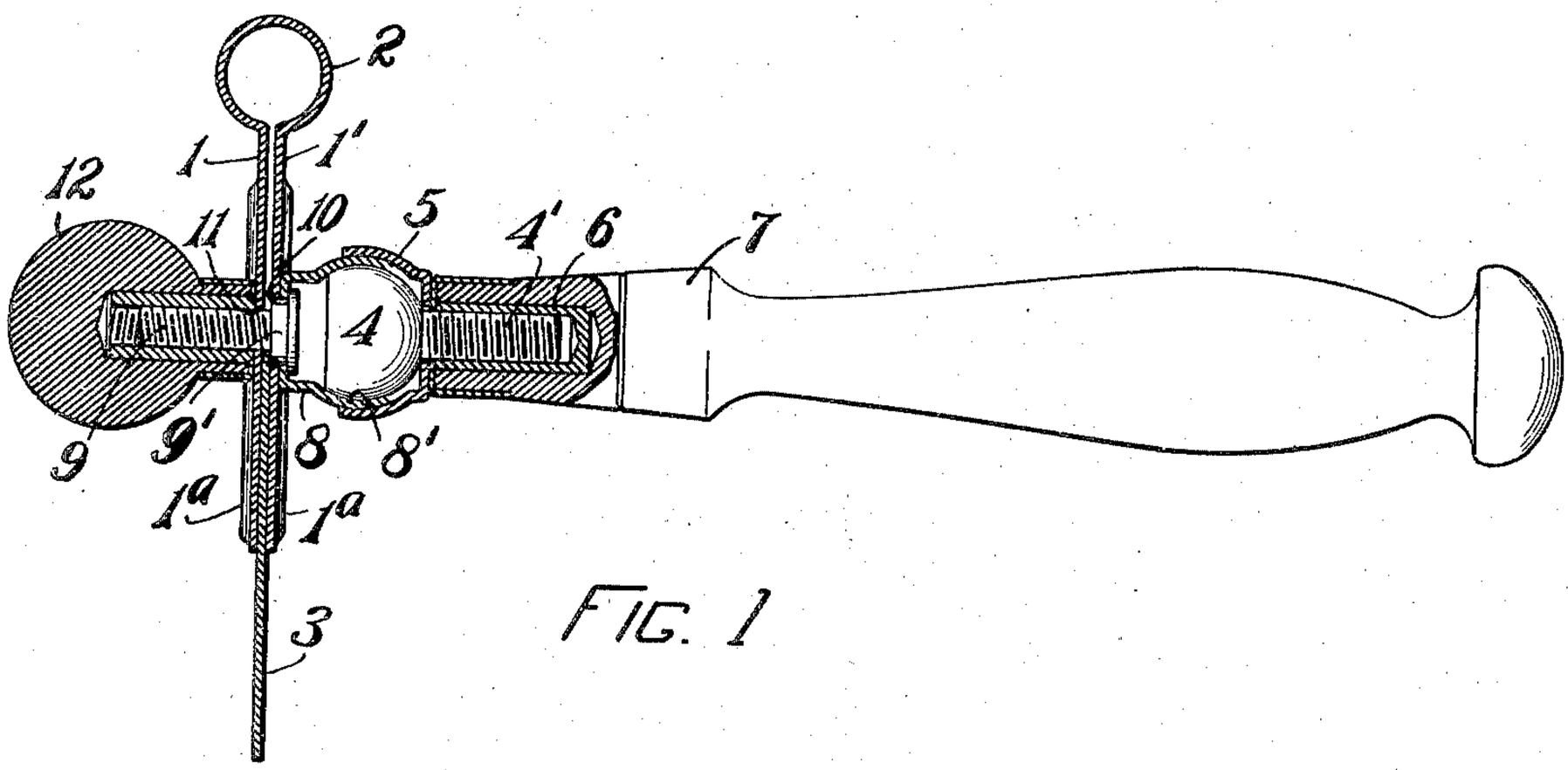

FIG. 1

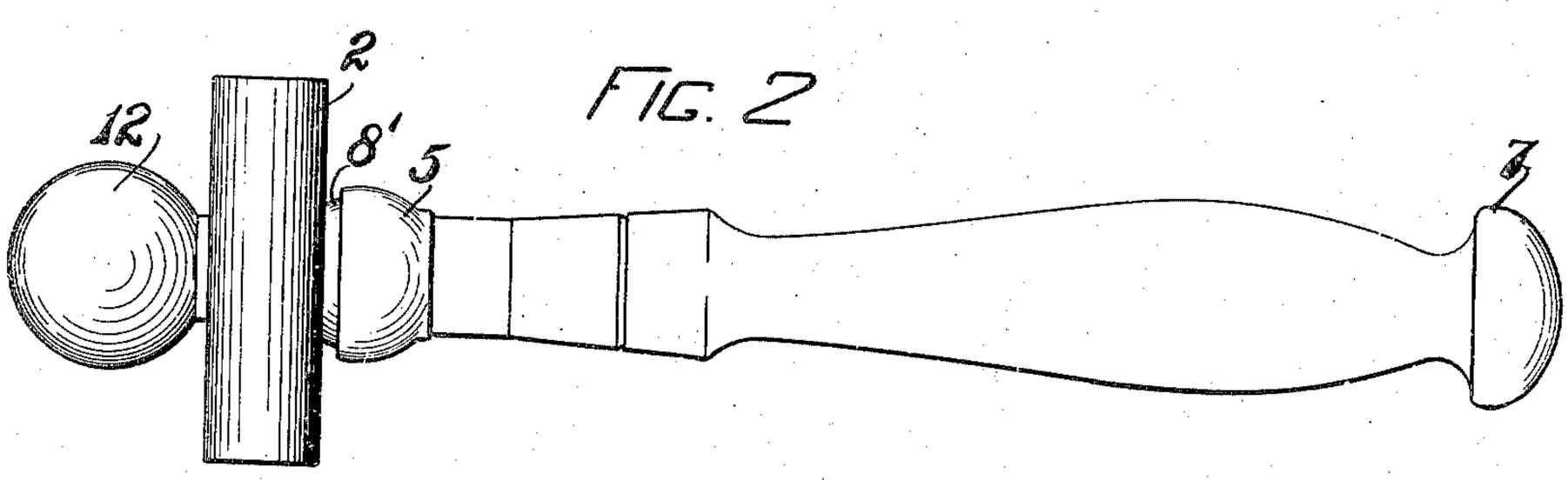

FIG. 2

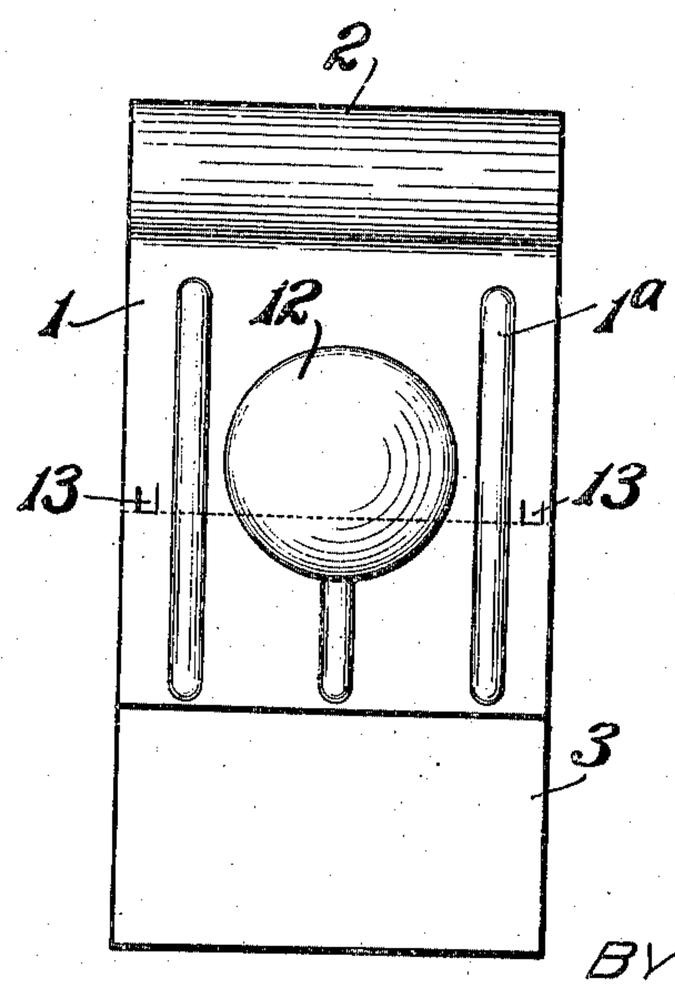

FIG. 3

WITNESSES
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LAROY S. STARRETT, OF ATHOL, MASSACHUSETTS, ASSIGNOR TO L. S. STARRETT COMPANY, OF ATHOL, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

FLOOR-SCRAPER.

966,962. Specification of Letters Patent. Patented Aug. 9, 1910.

Application filed March 5, 1910. Serial No. 547,524.

To all whom it may concern:

Be it known that I, LAROY S. STARRETT, citizen of the United States, residing at Athol, county of Worcester, Commonwealth of Massachusetts, have invented certain new and useful Improvements in Floor-Scrapers, of which the following is a specification.

This invention relates to scrapers and especially to that type of scraper used in finishing floors or like surfaces.

The object of my present invention is the provision of a device of this sort in which the scraping blade may be conveniently held during the work while readily removable and adjustable to present its different scraping edges. These, together with various other features of practical construction, I have set forth as illustrative of the embodiment described in the following specification and shown in the accompanying drawings which form a part thereof.

In the drawings:—Figure 1 is a side view of my scraper. Fig. 2 is a plan view, and Fig. 3 is a front end view.

1, 1^1 are a pair of sheet metal holder plates connected by a bowed loop which forms a cylindric hand rest and the whole constituting a frame for holding the scraper blade 3.

1^a are ribs struck up on the plates 1 and 1^1 for the purpose of strengthening them, and also adding finish and improving the appearance.

4 is a spherically shaped head having a stem 4^1.

5 is a socket formed as a spherically shaped cup having an opening through its flattened bottom through which the stem 4^1 passes. The stem 4^1 is screwed into an internally threaded socket 6 formed on the end of a suitable handle 7.

8 is a flat bottom cup having a spherical portion 8 swaged about the spherical portion 4 on the end of the bolt 4^1. The socket 8 has an elongated opening in its bottom through which a bolt 9 passes. The bolt 9 has a squared portion 9^1 adapted to coöperate with the cup in the elongated slot in the bottom of the cup 8.

12 is a spherical nut or knob adapted to be screwed on the end of the bolt 9. In assembling the bolt 9 is thrust through the slots 10 and 11 of the plates 1 and 1^1. The slot 10 is elongated to correspond with the slot in the bottom of the cup 8 and is, therefore, held by the squared portion 9^1 on the bolt 9.

Referring to Fig. 3, it will be seen that this blade 3 is in the form of a square. The blade is formed of thin metal, but of a thickness sufficient to afford a scraping edge on each face. The blade 3, therefore, has eight working edges giving to the tool a continuous use eight times that of a single edged tool without the necessity of resharpening.

In operation the blade 3 is slipped between the plates 1 and 1^1 of the holder and clamped by tightening the spherical nut or knob 12 on the bolt 9. This firmly clamps the blade 3 in place.

13 are inturned lips struck up in the plate 1^1 which constitute a backing for the upper edge of the blade 3. The blade 3 is, therefore, firmly held in working position in the head.

In using the tool the palm of the left hand is placed on the bowed or cylindric spring portion 2 of the holder which thus forms a convenient hand grasp. The spherical nut 12 is engaged by the fingers of the same hand while the other hand grasps the handle 7 to assist in the guiding and drawing along of the tool. I have shown a handle set perpendicular to the plane of the blade 3. In order to adjust the handle at any angle to the blade, the handle 7 is given a slight turn to the left which loosens the socket 7 on the threaded shank 4^1 of the spherical head 4 which slackens the ball and socket joint 4, 5, 8. The handle may then be set at any angle desired, up or down, right or left, so that the user may work in any position which he finds most advantageous. At any time therefore that he desires to change the angle of the handle he has only to give the handle a partial turn move it to the angle desired and then lock the joint by screwing the handle back by another slight twist.

Various modifications, may, of course, be made in the details of the structure of my device, all without departing from the spirit of my invention if within the limits of the appended claims.

What I therefore claim and desire to secure by Letters Patent is:—

1. In a scraper, an integral sheet metal frame piece, comprising a pair of clamping plates united by a bowed spring portion, a handle having an internal socket in its end, a cup on the end of said socket, a bolt

having threaded engagement with said socket and having a spherical head piece centrally within said cup, a second socket swaged about said spherical head and inclosed within said first named socket, a bolt passing through the second named socket and also through said clamping plates and a nut engaging with said bolt for clamping said plates together.

2. In a scraper, an integral sheet metal frame piece comprising a pair of ribbed clamping plates united by a bowed spring portion, a blade, a backing lip struck in on one member to support the blade a handle attached to said frame and means for clamping said plates to hold the blade therein.

3. In a scraper, a handle having an internal socket in its end and a cup on the end of said socket, a bolt having threaded engagement with said socket and having a spherical head piece concentric with said cup and a socket swaged about said spherical head and inclosed within said socket, and a bolt passing through the second named socket and also through the frame.

4. In a scraper, a frame comprising a split cylindrical spring portion and a pair of blade holding plates formed on the edges thereof, a clamping bolt passing through said plates and having an internally threaded knob engaged thereon for clamping said plates upon a blade, said knob being spaced from said cylindrical spring portion at a suitable distance to be engaged by the fingers when the portion is rested on said cylindric spring portion and a handle attached to said frame.

5. In a scraper, a cup, a spherical clamping piece therein and an oppositely faced cup having a spherical portion partly surrounding said head and disposed between it and the walls of said first named cup to clamp the spherical portion of said second named cup between it and the walls of the first named cup.

In testimony whereof, I affix my signature in presence of two witnesses.

LAROY S. STARRETT.

Witnesses:
FRANK E. WING,
JAMES E. HINDES.