

(No Model.)

S. H. BRAND.
STEEL WIRE BROOM OR BRUSH.

No. 454,607.

Patented June 23, 1891.

Fig. 1.

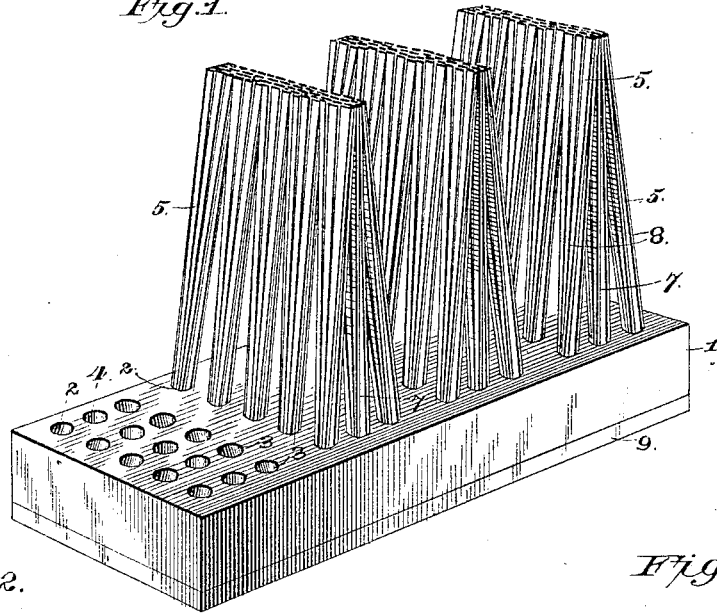


Fig. 2.

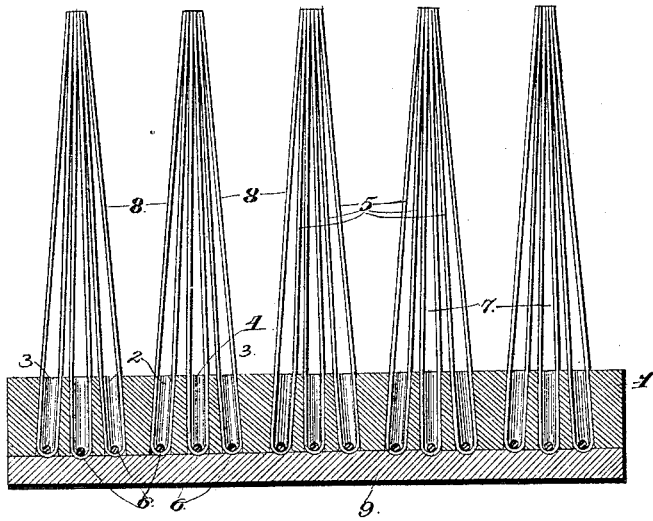


Fig. 3.

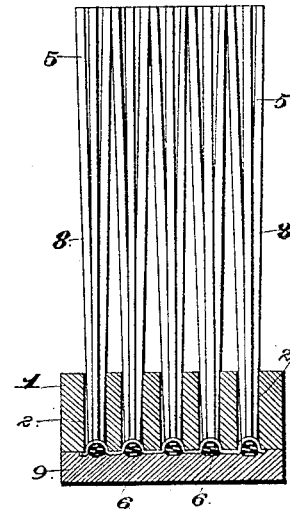
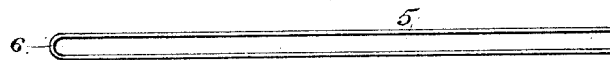


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

SILAS H. BRAND, OF CHICAGO, ILLINOIS.

STEEL-WIRE BROOM OR BRUSH.

SPECIFICATION forming part of Letters Patent No. 454,607, dated June 23, 1891.

Application filed November 26, 1889. Serial No. 331,606. (No model.)

To all whom it may concern:

Be it known that I, SILAS H. BRAND, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Steel-Wire Broom or Brush, of which the following is a specification.

This invention has relation to tempered flat steel-wire brushes or brooms for foundry use, and the objects in view are to simplify the manufacture of the brush, increase the life and efficiency of the same, and so arrange the wires or tufts that the rows thereof will yieldingly support each other in such manner that the broom may be used either end forward.

With these general objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claim.

Referring to the drawings, Figure 1 is a perspective view of a brush constructed in accordance with my invention. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a transverse section through one of the transverse series of openings.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates the brush block or head, and at intervals throughout the longitudinal length of the same are bored pairs of openings or perforations 2 and 3, the openings being arranged in transverse series and through and through the head, each pair of each opposite series being inclined toward each other, so that an imaginary line drawn through the longitudinal length of one of the openings of one series would meet such a line drawn through the opposite opening of the companion series at some distance from the face of the block or head.

4 designates a vertical transverse series of openings, said openings being formed at a right angle to the block or head and occurring intermediate the oppositely-inclined series of pairs, so that an imaginary line drawn through the openings 4 will meet imaginary lines drawn through the inclined openings at the points of intersection of the latter.

5 designates a properly-tempered flat steel wire of double the length of tuft desired and bent centrally upon itself, as at 6. Into the openings 2, 4, and 3 are inserted a series of such wires, their flat faces arranged longitudinally of the block, and consequently to-

ward each other. The central series 7 of tufts thus formed terminate between the opposite inclined series of tufts 8, and the adjacent faces of each of the tufts contact considerably below the outer ends of the wires. Through each transverse series of doubled wires is passed a fastening-wire 10, the same passing transversely across the back of the brush-head and being looped, as shown, into each of the perforations 2. By this construction it is apparent that whichever way the brush is moved longitudinally the advance tufts 8 are yieldingly supported by the rear tufts 8, together with the tufts 7, so that the brush may be reversed and used, either end forward, and thus evenly worn and its efficiency not impaired in the least until the tufts are completely worn down.

The brush-head 9, it will be understood, may or may not be provided with any suitable handle.

By bending the wires in the center both branches thereof project from a single cavity and partake of the convergent shape of the cavities, lying flat against each other the greater portion of their length. Thus both branches of the double wire from one perforation abut against both branches of the double wire from the other perforation of the same pair at a proper point from the head of the brush.

Having described my invention, what I claim is—

The herein-described brush or broom head, provided with a series of pairs of transversely-arranged openings, the openings of each pair being inclined toward each other in the direction of the length of the brush, and with an opening arranged at a right angle to the brush-head, located between each pair of inclined openings, and a series of tufts arranged in each of the openings, said tufts being formed of flat steel strips, as 5, bent upon themselves, as 6, and by reason of the disposition of the openings in which they are mounted having their outer ends meeting at a point beyond the head of the brush, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

SILAS H. BRAND.

Witnesses:

J. H. SIGGERS,
MYER COHEN.