W. H. PATON.

BROOMS.

No. 195,639. Patented Sept. 25, 1877

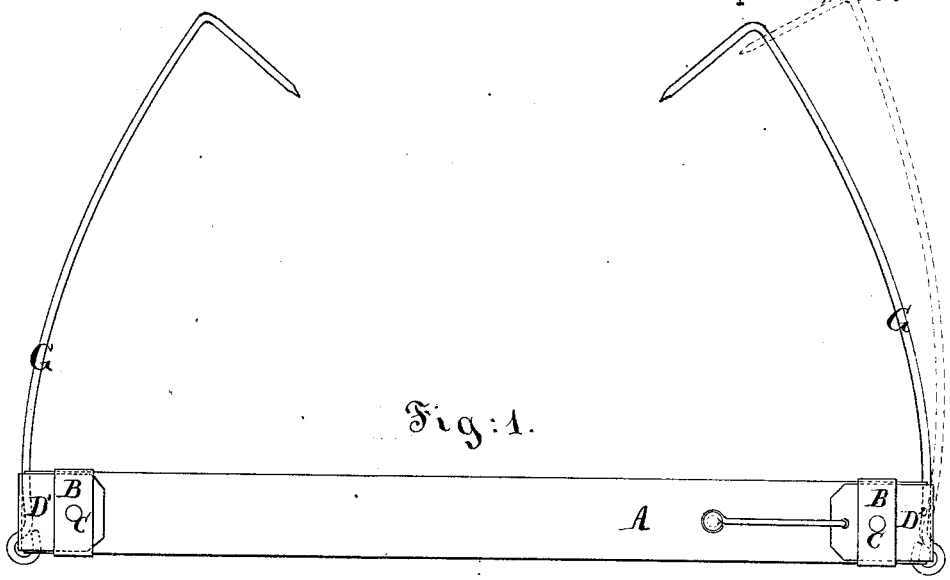

Fig: 1.

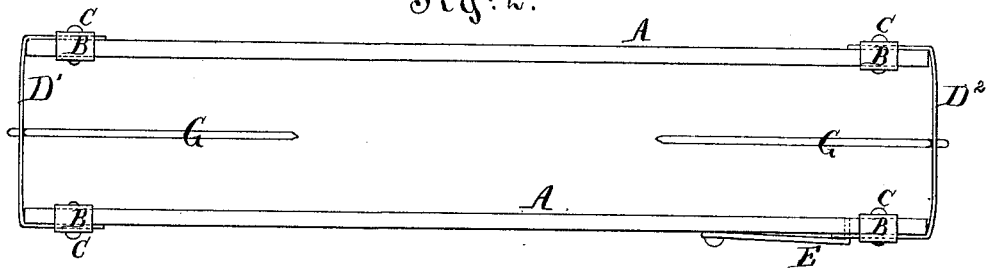

Fig: 2.

Witnesses:

A. Henry Gentner 2

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UNITED STATES PATENT OFFICE.

WILLIAM H. PATON, OF NEW YORK, N. Y., ASSIGNOR TO ALLEN L. WOOD, OF SAME PLACE.

IMPROVEMENT IN BROOMS.

Specification forming part of Letters Patent No. **195,639**, dated September 25, 1877; application filed February 22, 1877.

To all whom it may concern:

Be it known that I, WILLIAM H. PATON, of New York city, in the State of New York, have invented certain new and useful Improvements relating to Brooms, of which the following is a specification:

Flat brooms of the ordinary construction, made with broom-corn, are ordinarily too limber when new; or, in other words, the broom-corn is unsupported for so great a length that a vigorous use of the broom tends to demoralize and destroy it. It is undesirable to permanently connect the broom-corn together much lower down than is ordinarily done, because as the broom wears away a freedom of motion of the strands is desirable up to the same point as is now allowed. A temporary fastening or connection has been sometimes made below the permanent fastenings by means of strings or other crude appliances.

My invention is designed as a substitute therefor, and is a removable elastic bridle, with a rigid bar on each side, peculiarly adapted to serve the intended use, and equipped with appliances by which it may be instantly and conveniently attached and detached. It also allows of being readily changed in position up and down on the broom.

The accompanying drawings form a part of this specification, and represent what I consider the best construction of my device.

Figure 1 is a side elevation, and Fig. 2 is a plan view.

Similar letters of reference indicate like parts in all the figures.

A A are parallel bars or stretchers of hard wood. B B are strips of tinned wire, secured to the pieces A by rivets C, and D^1 D^2 are end straps which connect the pieces A together. The strap D^1 is permanently fastened by the rivet C at that end engaging with it; but it is quite elastic. The strap D^2 is detachable at one end. Its elasticity allows the detachable end to be readily drawn out from under its strap B, and be again inserted at pleasure. E is a hook which is adapted to engage in a hole in the end of the strap D^2.

To disengage my device from a broom, the hook E is drawn out from the hole in the strap D^2, and the latter is sprung out from its position under the strap B. This allows the bars A A to be sprung apart to a sufficient extent by the elasticity of the strap D^1, and the device may then be removed from the broom on which it has been previously used and applied upon a new one. The construction allows the spreading strands of the broom-corn to be readily compressed together, and the whole can be confined by a ready insertion of the cross-strap D^2 under the strap B, and the hook E to be engaged.

I believe that the device may be used with some success in the condition just described—that is to say, without any fastenings. The weight of the device being slight, the friction of its contact, gently compressing together the broom, may be sufficient to hold it in place; but I greatly prefer the peculiar fastenings formed by the stout bent wires G G.

Each is formed with an angular bend near its free end, adapted to be thrust into the edge of the broom above. One hook, G, is engaged in a hole near the lower edge of the strap D^1, and the other similarly to the strap D^2. Both are looped to form a permanent engagement; but are capable of turning thereon, as will be readily understood.

They are bent in such form that prior to the insertion of their angular ends into the broom, and even afterward, the elasticity of the straps D^1 D^2 is available to force them in.

The wires G G may be of steel or hard iron, so that their own elasticity is also available for this purpose.

My device may be shifted up and down upon the broom. In case any serious difficulty is found in shifting up as the broom wears away, the device can be opened and shifted up in the open condition and again secured together.

The material may be varied. Thus, the fastening-wires may be hard brass or German-silver. So may the straps D^1 D^2 and B. The pieces A may be metal or other suitable material instead of wood. The metals may be plated or variously decorated.

The bars A, when made of wood with considerable width, as shown, avoid the liability to cutting of the broom material, to which

ordinary metallic bars are liable. I esteem it far preferable to employ wood than metal for these bars.

I claim as my invention—

1. The broom-bridle or broom-protector described, having stretchers or bars A, elastic straps D^1 D^2, and fastening means E, adapted to be readily engaged and adjusted upon a broom and shifted from one to another, as herein specified.

2. In combination with an openable broom-band, having long parallel bars A A and connections D^1 D^2, with a fastening, E, the securing-hooks G G, adapted to serve as and for the purposes herein specified.

3. The side bars A, suitably fastened, and adapted to be secured to a broom, substantially as and for the purposes herein specified.

In testimony whereof I have hereunto set my hand this 20th day of February, 1877, in the presence of two subscribing witnesses.

WM. H. PATON.

Witnesses:
THOMAS D. STETSON,
CHAS. C. STETSON.