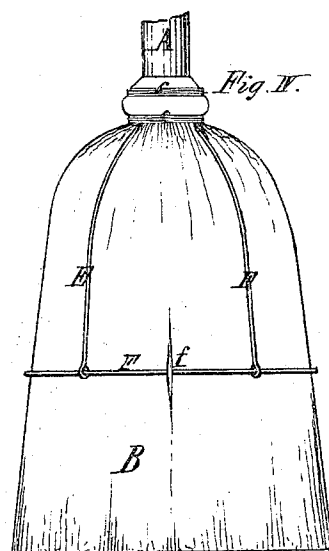
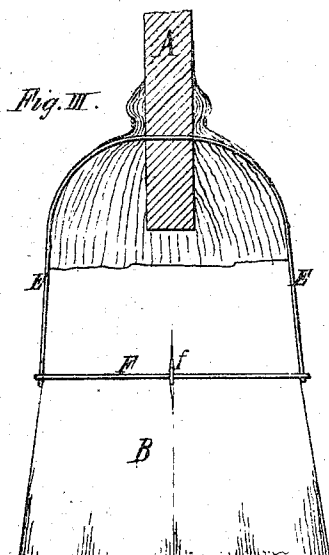
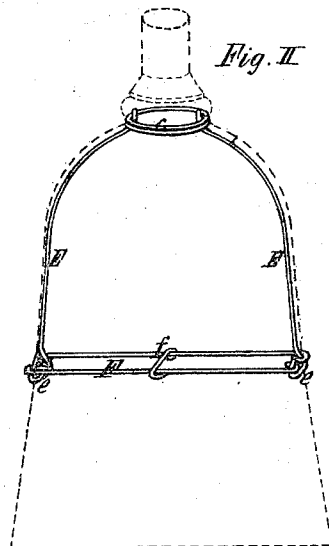
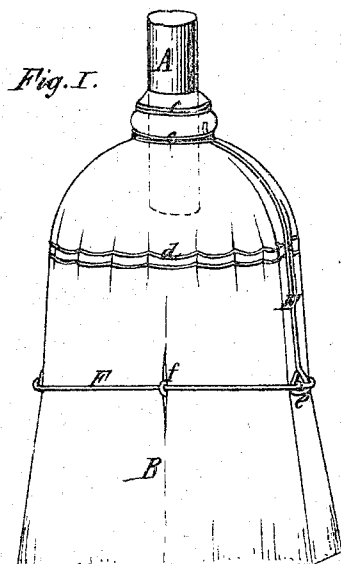


R. W. ENGLISH.
Improvement in Brooms.

No. 128,609.

Patented July 2, 1872.



John J. Donnell
Edmund Wilhelm Witnesses

R. W. English INVENTOR
by Jay S. Hyatt atty.

UNITED STATES PATENT OFFICE.

RICHARD W. ENGLISH, OF BUFFALO, NEW YORK.

IMPROVEMENT IN BROOMS.

Specification forming part of Letters Patent No. 128,609, dated July 2, 1872.

SPECIFICATION.

I, RICHARD W. ENGLISH, of the city of Buffalo, in the county of Erie and State of New York, have invented certain Improvements in Brooms, of which the following is a specification:

My improvement is designed as an attachment to the ordinary broom, which is composed of broom-corn, secured at their butts to the head or end of the wooden handle, and sewed together at a point below the end of the handle, for the purpose of giving the proper shape to the broom, and to hold the broom-corn down in place. In using such brooms the free ends of the broom-corn are liable to spread and get out of shape, thereby destroying, to a certain extent, the stiffness and efficiency of the implement. For the purpose of remedying this defect, and previous to my invention, the brush portion of the broom-head has been sewed together at two points, one below the ordinary and regular fastening. This lower sewing, while it confined the broom-corn in place, bound the fibers so firmly together as to in a great measure destroy the spring or elasticity of the broom above the point where it was thus fastened. An unyielding metallic plate has also been applied to each side of the broom-head, and fastened together at their lower corners at the edges of the broom, for a similar purpose of confining the fibers in place. This, equally with the second line of sewing, destroys the elasticity of the broom, and is, therefore, in a like manner, objectionable.

My invention consists in the combination and application to a broom-head, below the ordinary line of sewing or point of fastening, of a loosely-fitting metallic guard-band and light spring-stays, connecting the band with the handle or neck of the broom, whereby the fibers of the broom are retained in place without injuriously affecting their elasticity, while the spring-stays operate when the brush is bent in using the implement, to restore it to its proper shape after the pressure is removed, thereby increasing the elasticity of the broom-head.

In the accompanying drawing Figure I represents a broom, provided with my improvements; Fig. II represents the metallic band, stay-rods, and fastenings with the dotted outlines of the broom; Fig. III shows a modified mode of fastening the stay-rods; Fig. IV shows

a broom with the stays arranged on the sides of the broom.

A represents the broom-handle; B, the broom-corn; *c c*, the wire-fastenings at the butts of the latter; and *d*, the sewing or stitching below the end of the handle. E represents the elastic stay-rods, preferably composed of steel wire, and provided at their lower ends with a loop, *e*. I prefer to use two of these stays, one arranged at each edge of the broom, as clearly shown in Figs. I and II. They are fastened in the upper end of the broom by hooking under or over one of the wire rings *c*, or by making them in one piece, and passing the same through the end of the handle, as represented in Fig. III. F represents the metallic band, arranged around the broom below the stitching *d*, and connecting with the lower ends of the stay-rods E. The band F is preferably constructed of two wires connecting with the loops *e* of the elastic stays by hooks, and stiffened in the center by a cross-piece, *f*, as clearly represented in Figs. I and II. Instead of being arranged to the edges of the broom, the stays may be arranged on the flat sides, as shown in Fig. IV.

It is evident that in bending the broom the elastic stay-rods will readily yield to the pressure, while the loose band F allows the fibers of the broom, as the head is bent in either direction, to slip or slide one along the other, which is essential to the proper flexibility of the broom. As soon as the pressure is relieved the stay-rods E return the broom to its proper position, and, thereby, in connection with the guard-ring, serve to retain the fibers in place and the broom in its original shape, and prevent the unsightly appearance which ordinary brooms assume after having been in use for some time.

If the broom-corn below the band F is worn out and the broom desired to be used further, the lower ends of the stays E may be cut off and the guard-band readily removed.

What I claim as my invention, is—

The application to a broom-head below the ordinary line of sewing of the loosely-fitting metallic guard-band F, in combination with the independent spring-stays E, substantially as hereinbefore set forth.

Witnesses: RICHARD W. ENGLISH.

JOHN J. BONNER,
EDWARD WILHELM.