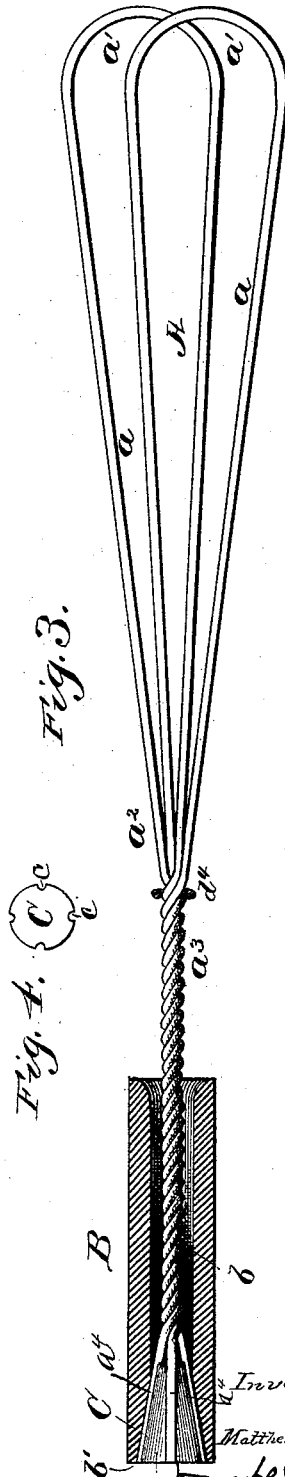
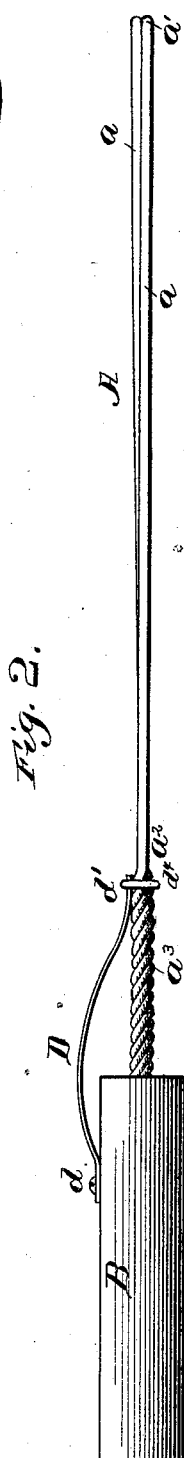
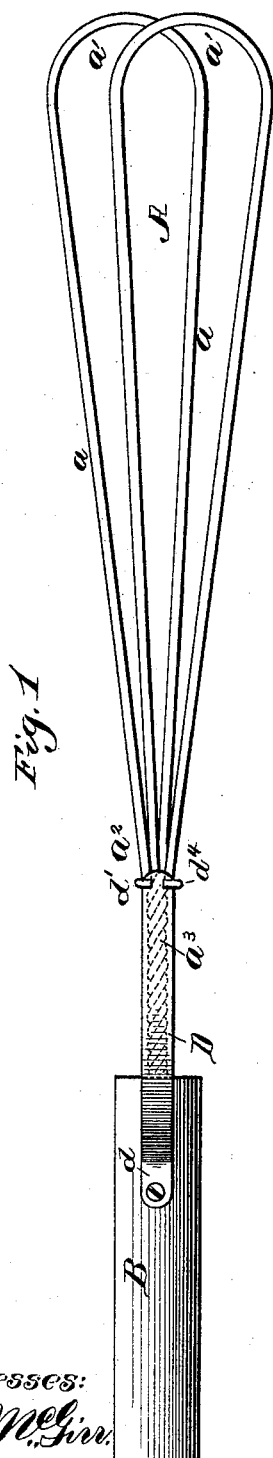


(No Model.)

M. FITZPATRICK.
CLOTHES BEATER.

No. 422,387.

Patented Mar. 4, 1890.



Witnesses:
J. B. McGinnis
M. B. May

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by D. B. Bliss
attys.

UNITED STATES PATENT OFFICE.

MATTHEW FITZPATRICK, OF OMAHA, NEBRASKA.

CLOTHES-BEATER.

SPECIFICATION forming part of Letters Patent No. 422,387, dated March 4, 1890.

Application filed September 28, 1889. Serial No. 325,391. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW FITZPATRICK, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Clothes-Beaters, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to improvements in the devices for switching or beating cloth carpets and similar materials, the object being to provide one which shall be cheap in construction and yet durable, and have a greater elasticity than is incident to the devices ordinarily used for such purposes.

15 Figure 1 is a face view of my improved switch or beater. Fig. 2 is an edge view. Fig. 3 is a sectional view. Fig. 4 is an end view of the fastener detached.

20 In the drawings the active part of the implement is indicated by A. It is composed of two or more spring-metal wires *aa*. As shown, two wires are employed, which are bent at their central parts to form loops, as at *a'*. The end parts of the wires are brought gradually together, as shown at *a²*, the loop portions *a'* being so arranged that the active end shall be as wide as is desired.

30 At *a³* the wires are twisted or braided so as to form virtually a single body for a distance sufficiently long, and this twisted or braided part is inserted into a handle. The latter is indicated as a whole by B. It may be of any suitable material, as wood or iron. It is provided with a longitudinal aperture *b b'*, the part *b* being cylindrical or flaring outwardly. In either case it is of greater diameter than the twisted or united parts of the wires at *a³*.
40 The part *b'* is preferably flared outwardly; but some of the ends of the invention can be attained if it be otherwise shaped.

45 C is a fastener of the nature of a plug adapted to fit tightly in the part *b'* of the said aperture. If made of metal, it can be grooved, as at *c*, and into the grooves the ends *a⁴* of the wires can be inserted. If wood is used in making the parts B and C, or either of them, it will not be necessary under all circumstances to form grooves, inasmuch as the wires
50 can be passed backward through the handle

and the ends thereof separated, and then the plug placed between them and driven into place, the result of which will be to crowd the wires into the wooden part sufficiently to make a very strong fastening for them.

When the implement is in use, it will be impossible under ordinary circumstances for the wires to escape longitudinally forward, owing to the fact that they are crowded outward at the rear ends in such way as to flare, even if the part *b'* of the aperture be initially cylindrical.

As the fastener C secures the wires rigidly to the handle, the wires have a resilient vibration beginning at a point near the fastener, the relatively large forward part of the aperture in the handle permitting such vibration, and at the same time the handle can be as long as is necessary to allow it to be grasped firmly; hence a small implement—such as is required in the beating of clothing—can be readily provided which shall have a strong resiliency, and in this respect—to wit, the fastening of the wires rigidly at the rear end of the handle and providing a relatively-large aperture in front of the fastener—the construction is superior to one having a loose or pivotal connection for the wires. In order to still further insure that they shall be held in place longitudinally, and also to hold them in proper position laterally and impart to them the elasticity of a supplemental part, I combine with the wires and the handle a flat spring D, which may be made of steel, brass, or any suitable material. As shown, it is held by a screw or rivet at *d* to the handle, and at *d'* is fastened to all of the wires. This acts to prevent the wires from being bent out of shape and retains them in the desired form and gives the implement as a whole much more elasticity than it would possess if the wires alone were present.

What I claim is—

1. In a switch or beater of the character described, the combination of the handle having a longitudinal perforation, the wires passing through said perforation, the latter being in its forward part of larger diameter than the space occupied by the wires, and the fastener in said perforation at the rear end and clamping the wires rigidly to the handle, whereby

the latter have a resilient vibration in the forward part of said aperture, substantially as set forth.

2. In a switch or beater of the character described, the combination of the wires twisted together near their rear ends to form a common body, a handle having a longitudinal aperture larger in diameter than the said twisted body, and means for separating the wires at the ends and clamping them to the rear end of the handle, substantially as set forth.

3. In a switch or beater of the character described, the combination, with the wires, of the handle having an aperture formed with the part *b'* flaring rearwardly and the part *b* oppo-

sitely flared at the front end, the central portion of said aperture being wider than the space occupied by the wires, and the fastener C secured in the part *b'*, substantially as set forth.

4. The combination of the elastic wires, the handle to which the said wires are secured, and the supplemental flat springs D, secured to the handle and to the wires in front of the handle, substantially as set forth.

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

MATTHEW FITZPATRICK.

Witnesses:

P. W. LYNCH,

CHARLES O. ELBIEKEELSER.