No. 713,549. Patented Nov. 11, 1902.

McCLINTOCK YOUNG.

BROOM OR ANALOGOUS INSTRUMENT.

(Application filed June 11, 1902.)

(No Model.)

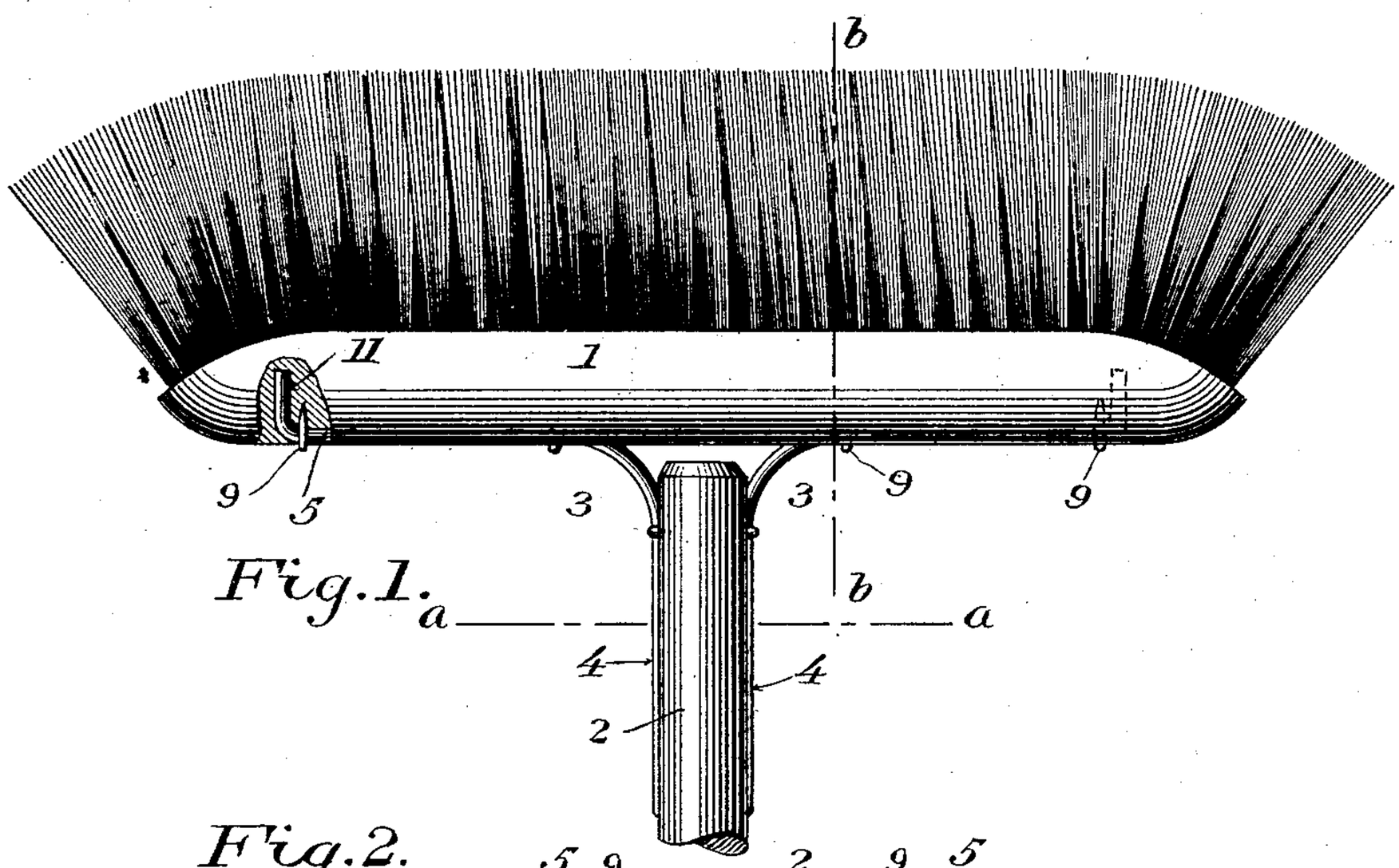
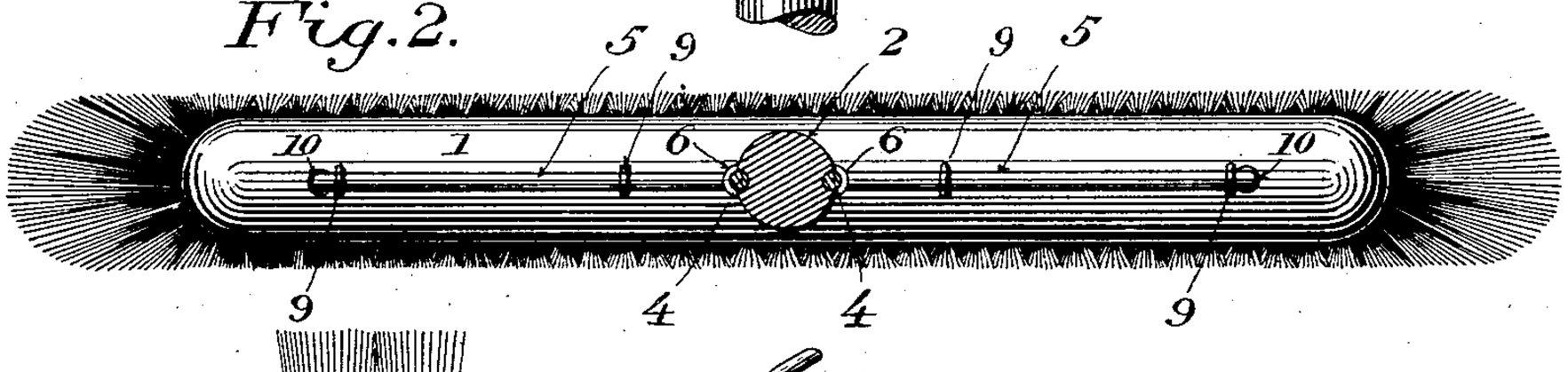


Fig. 1.

Fig. 2.



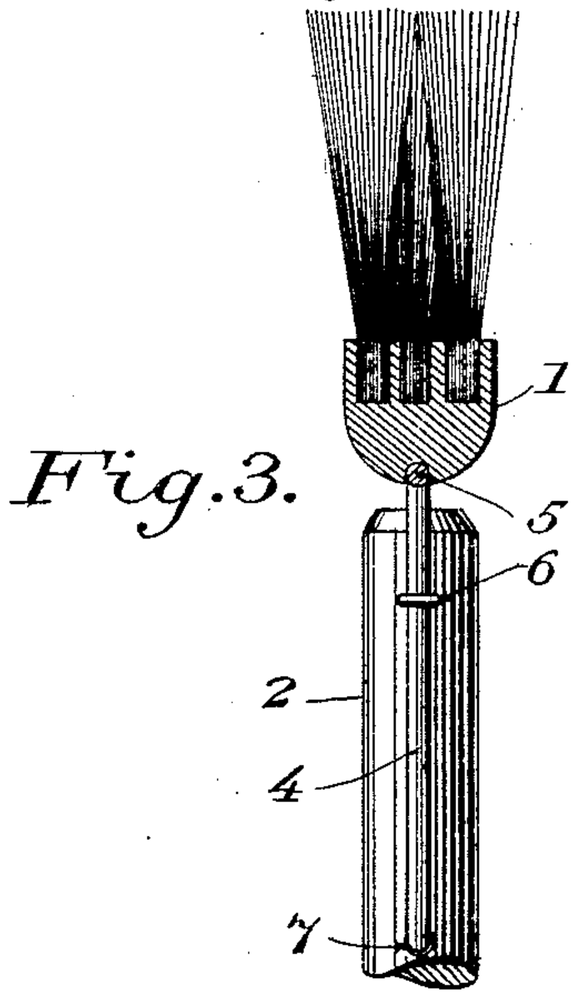


Fig. 3.

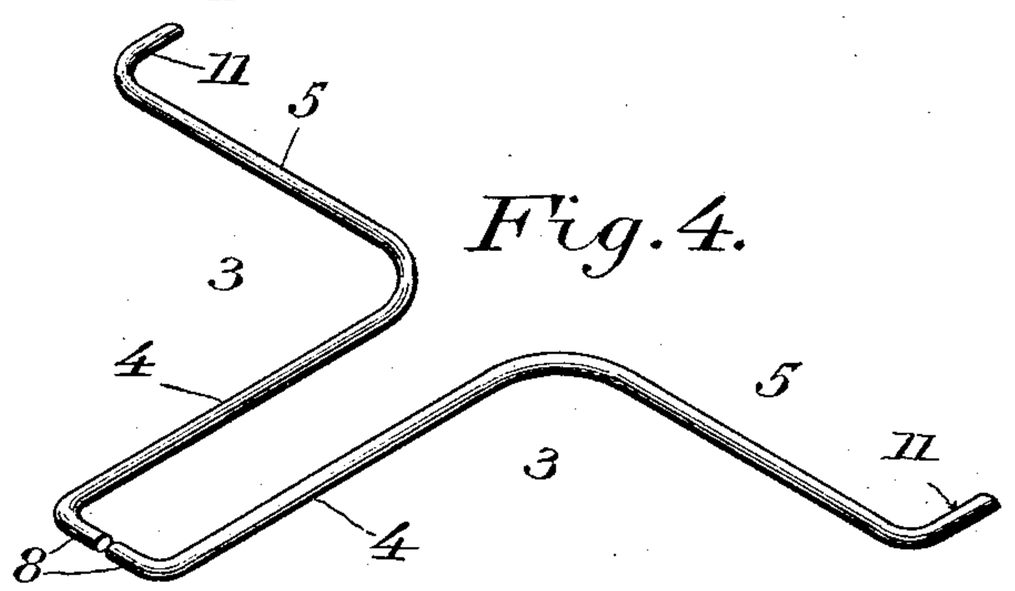


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

McCLINTOCK YOUNG, OF FREDERICK, MARYLAND, ASSIGNOR TO THE PALMETTO FIBRE COMPANY, A CORPORATION OF ILLINOIS.

BROOM OR ANALOGOUS INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 713,549, dated November 11, 1902.

Application filed June 11, 1902. Serial No. 111,181. (No model.)

To all whom it may concern:

Be it known that I, McCLINTOCK YOUNG, of Frederick, county of Frederick, and State of Maryland, have invented a new and useful Improvement in Brooms or Analogous Implements, of which the following is a specification.

This invention relates to brooms and analogous implements, and has in view a flexible connection of the broom-head with the handle in order that the operator may be relieved of the usual strain incident to a rigid handle or stiff broom and in order that the wear on the carpet and broom may be avoided.

With these ends in view my invention consists in interposing between the handle and head of the broom a flexible connecting device in the form of a rod or wire secured, respectively, to the head and handle and extending in such relation to the head that the wire will be subjected to a torsional strain when the head of the broom yields relatively to the handle in the act of sweeping.

The invention consists also in the details of construction and combination of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a broom having my invention embodied therein. Fig. 2 is a sectional plan view on the line *a a* of Fig. 1. Fig. 3 is a sectional elevation on the line *b b* of Fig. 1. Fig. 4 is a perspective view of the parts of the flexible connection detached from the broom.

Referring to the drawings, 1 represents a brush or broom head, and 2 a handle, which terminates at its end close to the back of the head and which is connected with the same by means of two connecting devices 3 of angular form, fastened rigidly to the handle and head, so as to extend along the opposite sides of the handle and longitudinally at the back of the head, as shown in Fig. 1. These connecting devices are formed of lengths of ordinary commercial wire, which are bent about midway between their ends at a right angle, forming two directly-connected arms 4 and 5, extending in one and the same plane, the arms 4 extending parallel to each other along the opposite sides of the handle and the arms 5 extending in opposite directions outward longitudinally along the back of the broom-head. As a result of this construction and arrangement, and particularly by reason of the arms 5 extending longitudinally at the back of the head, the lateral or side movement of the broom when in use will place the arms 5 under a torsional strain, which will permit the head to yield to a limited extent and which when the side strain on the broom is relieved will quickly restore the same to its normal position. The arms should be firmly secured to the head and handle in such manner that any twisting or slipping of the same with reference to the broom will be prevented, and this may be accomplished in any suitable manner. I prefer, however, to adopt the means shown, which has been found in practice to answer admirably the ends in view.

On reference to the drawings it will be seen that the sides of the handle are provided with grooves, in which the arms 4 are seated and secured by staples 6, embracing the arms and driven into the handle, and at the ends of these grooves sockets or holes 7 are formed, which receive tangs 8 on the ends of the arms. The back of the broom-head is provided with a longitudinal groove, in which the arms 5 are seated and are secured by means of staples 9, and at the ends of the grooves holes 10 are formed, into which tangs 11 on the ends of the arms 5 are seated. From this construction it will be observed that the connecting-wires are rigidly and firmly secured to the handle and the head of the broom, and by reason of this firm connection there will be no liability of the wires slipping when the broom is subject to lateral pressure or strain in the act of sweeping. Consequently the wires at the back of the same will be placed under a torsional strain and will in this manner constitute a flexible connection between the head and handle.

It will be observed that the two arms 4 and 5 of the connecting devices are joined directly together at the bend and that they extend in one and the same plane, and when assembled and applied to the handle and head of the broom they extend closely within the angles between the sides of the handle and the adjacent sides of the head.

I do not claim herein the construction dis-

closed in my Patent No. 706,144, dated August 5, 1902, showing the connection between the handle and head of the broom in the form of a coiled spring arranged transversely to the axis of the handle. The device of the present application dispenses with this coiled spring and effects a flexible connection between the handle and head in a simple and effective manner.

Having thus described my invention, what I claim is—

1. In combination with a broom-head, a handle therefor, and a wire or rod bent between its ends to form directly-connected arms disposed at right angles to each other and the said arms extending respectively along the handle and longitudinally at the back of the broom-head and firmly secured to said parts.

2. In combination with a broom-head, a handle therefor and a flexible connection between the two comprising two wires or rods bent between their ends to form each two directly-connected arms 4 and 5 disposed one at right angles to the other and extending in the same plane, the arms 4 extending parallel to each other and fastened to the opposite sides of the handle, and the arms 5 extending in opposite directions at the back of the head and firmly secured thereto.

3. In combination with a broom-head, a handle therefor, and two wires or rods bent between their ends to form arms 4 and 5 disposed at right angles to each other, and connected directly together, with the arms 4 extending parallel to each other and fastened to the opposite sides of the handle, and the arms 5 extending in opposite directions at the back of the broom-head and fastened thereto.

In testimony whereof I hereunto set my hand, this 4th day of June, 1902, in the presence of two attesting witnesses.

McCLINTOCK YOUNG.

Witnesses:

MARSHALL FOUT,

J. MARSHALL MILLER.

Correction in Letters Patent No. 713,549.

It is hereby certified that in Letters Patent No. 713,549, granted November 11, 1902, upon the application of McClintock Young, of Frederick, Maryland, the title of the invention was erroneously written and printed "Brooms or Analogous Instruments," whereas the said title should have been written and printed *Brooms and Analogous Implements;* and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 25th day of November, A. D., 1902.

[SEAL.]

F. I. ALLEN,

Commissioner of Patents.