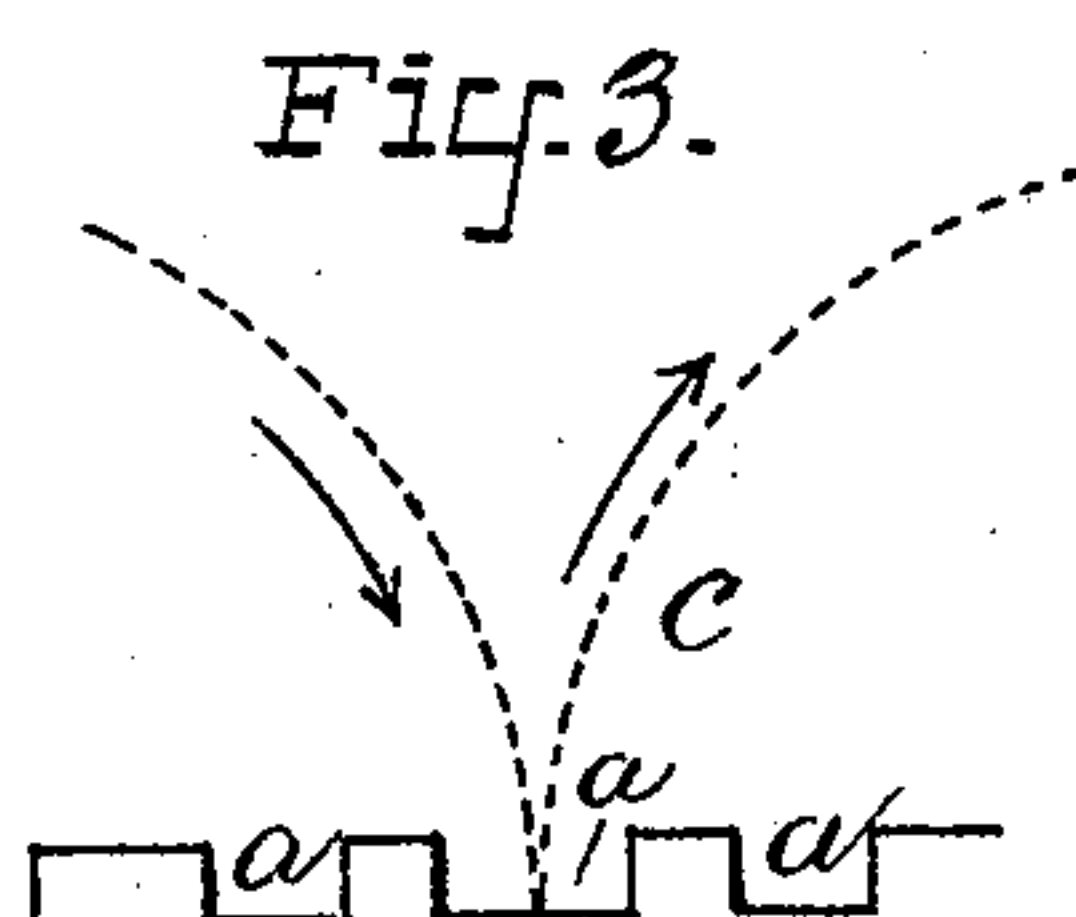
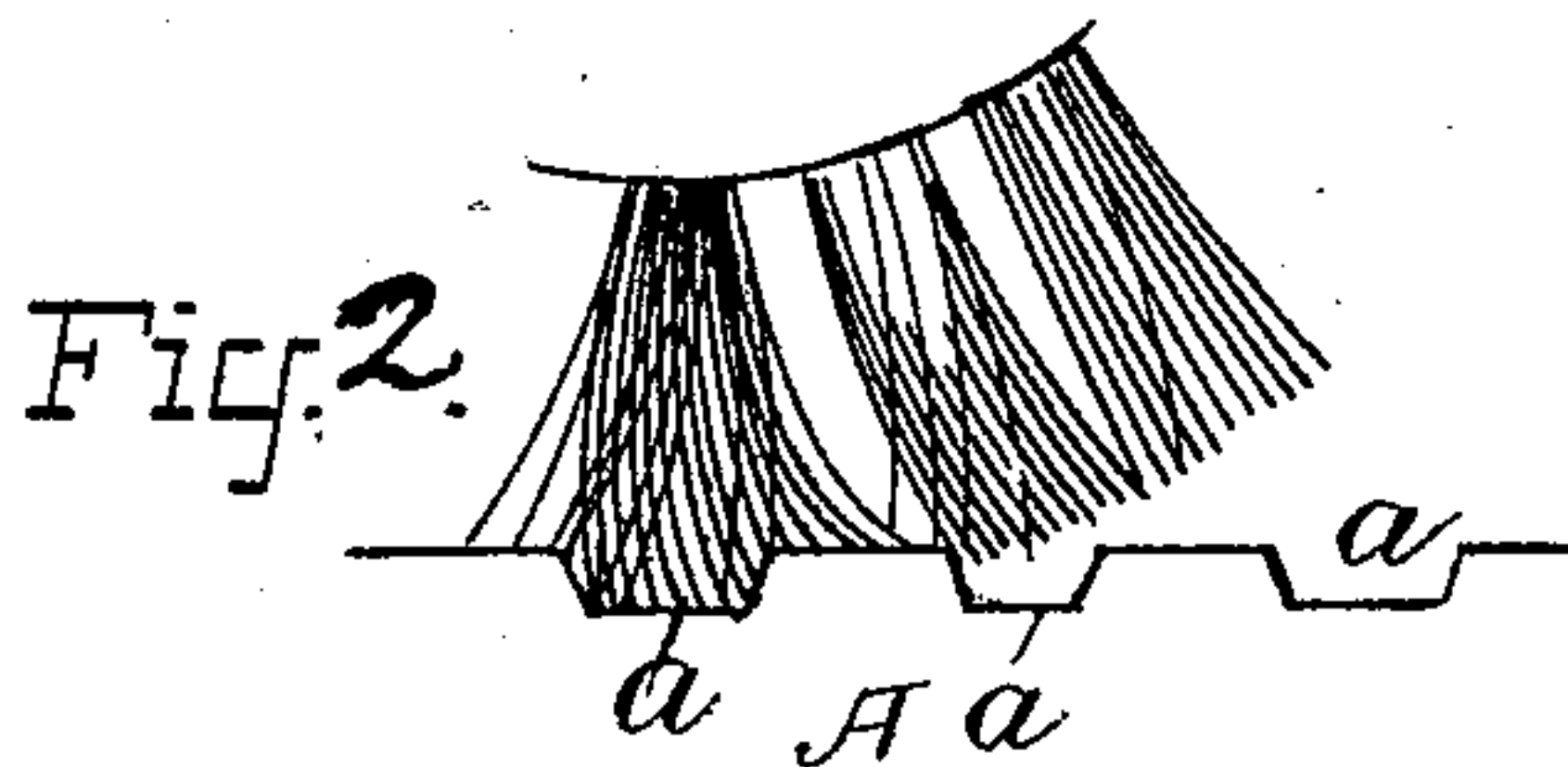
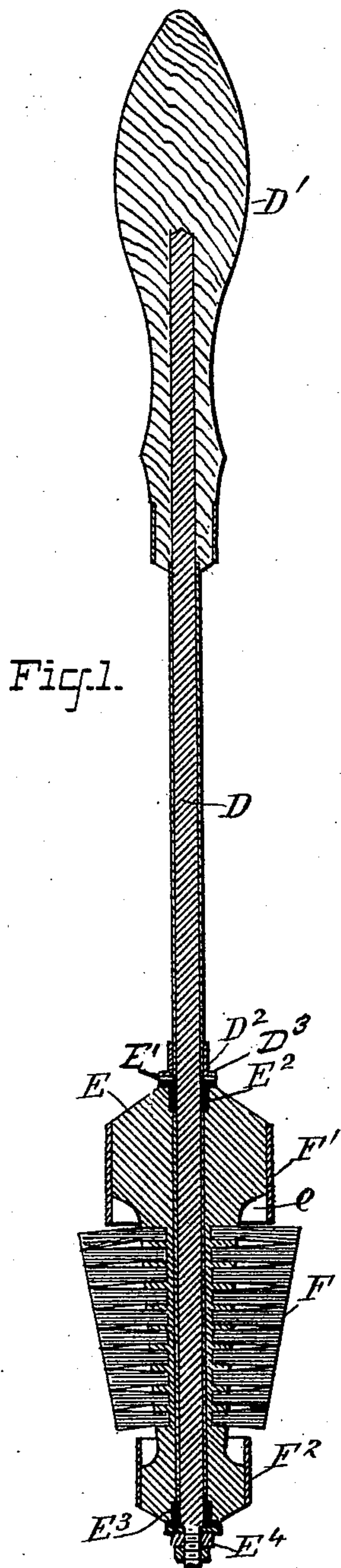


(No Model.)

G. L. EASTMAN.
BRUSH.

No. 582,190.

Patented May 11, 1897.



WITNESSES

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GEORGE L. EASTMAN, OF BROOKLYN, NEW YORK.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 582,190, dated May 11, 1897.

Application filed May 4, 1896. Serial No. 590,121. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. EASTMAN, a citizen of the United States, residing in Brooklyn, Kings county, in the State of New York, have invented a certain new and useful Improvement in Brushes, of which the following is a specification.

The subject of the present invention is an improved brush, the principal object being to provide a construction having an action calculated to thoroughly penetrate all parts of an irregular surface or object and effectively remove all dirt or other foreign matter.

In the drawings which form a part of this specification, Figure 1 is a vertical longitudinal sectional view illustrating my improvement as being embodied in a brush adapted for cleaning the type-surface of a type-writer by being moved around within the series of types and gently pressed outward. Fig. 2 is a sectional detail view showing, on an enlarged scale, the relative cleaning operation of the brush in its action in depressions in and between types or other irregular surfaces. Fig. 3 is a diagram showing the descending and ascending motion of the bristles as the brush rolls over the type or other irregular surface to be cleaned.

Similar letters of reference refer to corresponding parts throughout the several figures.

The brush portion is of rotatory character and revoluble at such a rate that in addition to moving across the face of the object it effectually enters and cleans all the recesses. In other words, it rolls upon the surface instead of brushing it. By this arrangement the bristles or other yielding fibers of the brush have a thrusting and also a definite curved movement in entering the recesses or depressions of the surface or object to be cleaned and an equally definite but reversed curved movement as they leave said recesses or depressions. Thus in the enlarged sectional view, Fig. 2, A designates recesses or depressions such as are incident to many irregular surfaces—say, for instance, the types of a type-writing machine, the type-faces in a printer's form, &c.

B designates the brush-bristles, the entering and leaving action of the same as they relatively move along the face to be cleaned being indicated by the reverse but converged

curved lines C, Fig. 3. The result of this operation is that the surface is effectively cleaned and the dust and foreign matter in the recesses or depressions gently but positively dislodged.

The construction of brush illustrated is designed more particularly for use in connection with type-writing machines. A rod or shaft D of comparatively extended length is provided at one end with a handle D', while on the other end portion is a freely-revoluble brush head or block E.

The rod D, contiguous to the inner end of the block E, has secured thereto a collar or ferrule D², against the flange D³ of which revolubly bears the corresponding flange E' of a bushing or gudgeon E², seated in the end of the central opening formed longitudinally in the block. A similar flanged bushing E³, seated in the outer end of the block, bears against a washer interposed between it and a jam-nut E⁴, engaging the threaded extremity of the rod and confining the block revolubly on the same, as before referred to.

The block E is of a tapering form and has the annular cut-away portion e, in which the groups of bristles F are located. The bristles are arranged to present a tapering brush-surface, as shown, so that it will accommodate itself to inclined type-faces.

Metal bands or sleeves F' F² embrace the body above and below the brush-surface, the bands being of such width that they each overhang a portion of the cut-away part of the block and terminate in close proximity to the ends of the brush F, thus forming a guard to prevent the edges of the brush from becoming caught or accidentally engaged by parts of the machine being brushed.

The brush described is not only an efficient cleaner, but is of simple and durable construction and can be used with great convenience.

By locating a longitudinally-arranged brush on the end of an extended handle surfaces of comparatively great inaccessibility can be effectively cleaned. The conical form of the brush admits of its being positively applied to any particular or restricted surface or portion, and also permits its withdrawal without liability of becoming engaged by and injuring any important parts—as, for instance, the

impression - characters of type-writing machines.

Wires, sisal-grass, &c., may be used instead of bristles.

5 Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a brush, the combination with a rod or shaft D having a suitable handle D', of a
10 circular brush E, F, longitudinally mounted and freely revoluble on said shaft, but having its axis of motion coincident with that of the handle, and bushings E², E³, the flanges of which bear against corresponding parts of
15 the rod, substantially as herein specified.

2. In a brush, the combination with a body E, revoluble on the rod D and recessed as

described, a brush-surface located in the recess, and overhanging sleeves F', F², on the body or block, substantially as herein specified.
20

3. As a device for cleaning irregular surfaces, the combination with the operating-handle D' of a circular brush E, F, mounted with liberty to revolve freely but with provisions for holding the axis of motion in a fixed relation to the handle.
25

In testimony that I claim the invention above set forth I affix my signature in presence of two witnesses.

GEORGE L. EASTMAN.

Witnesses:

J. B. CLAUTICE,

M. F. BOYLE.