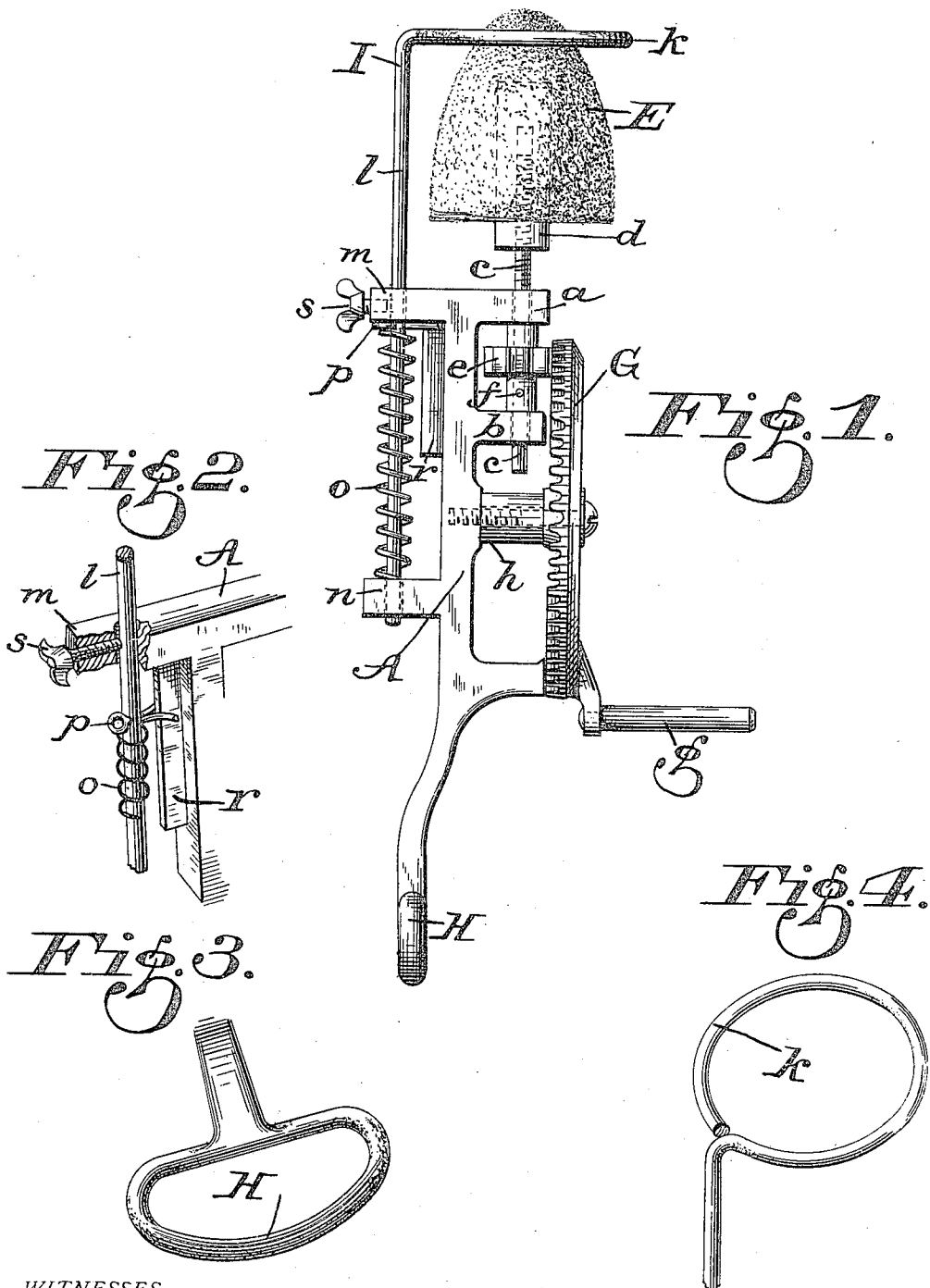


D. R. JOHNSON.
 REVOLVING UPHOLSTERER'S BRUSH.
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962,433.

Patented June 28, 1910.



WITNESSES:

Jas. O. Hartshorn.
 Anna K. Burnham.

INVENTOR:
 Daniel R. Johnson,
 BY
 Frank M. Burnham
 ATTORNEY.

UNITED STATES PATENT OFFICE.

DANIEL R. JOHNSON, OF DAYTON, OHIO.

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Specification of Letters Patent. Patented June 28, 1910.

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To all whom it may concern:

Be it known that I, DANIEL R. JOHNSON, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Revolving Upholsterers' Brushes, of which the following is a specification.

My invention relates to a revolving upholsterer's brush; and while said brush can be used to great advantage in removing the loose dust and dirt from upholstered goods generally, it is more directly intended and more especially designed and adapted for service on depressed surfaces, in cleaning and brushing away the dirt from around the buttons forming the center of the tufts of mattresses, cushions, couches, davenport, chairs, carriages, automobiles, etc., or other upholstered portions of said bodies.

The principal objects of this invention are to provide a brush as above referred to that can be readily handled and manipulated on depressed or concaved surfaces without injury to the most delicate fabric; also, one composed of few parts; simple in construction; and which can be manufactured at a small cost.

My invention consists essentially,—referring briefly and in general terms to my improved brush,—of the very peculiar and novel combination, arrangement, and construction of the various parts, as will be more fully described hereinafter and set forth in the subjoined claims in accordance with the statutes in such cases made and provided therefor.

Referring to the accompanying drawings illustrating my invention and constituting a formal part of this specification, and wherein the same letters of reference are used to indicate or point out the same parts wherever occurring throughout the several views: Figure 1 is a side elevation of my improved brush in operative position. Fig. 2 is a broken away perspective view of the controlling mechanism of the annular base for gaging the movement of the brush to a uniform depth. Fig. 3 is a broken away perspective view of the handle, and Fig. 4 is a broken away perspective view of the base.

In describing my said invention specifically, and referring in detail to the various mechanical parts or elements of construction of my revolving upholsterer's brush as

indicated or pointed out on the drawings by means of the letters of reference as aforesaid: A designates the frame which is adapted at *a* and *b* to loosely receive shaft *c*, the upper end of which has a screw-threaded connection with hub *d* of brush E,—and if so desired said hub may be provided with a small set-screw to engage said shaft, as an additional prevention against any lateral movement. I have here illustrated said brush of a style more especially suitable for the cleaning of depressed surfaces, such as tufts; but it is obvious that this brush may be of any desired style, so long as suitable for the surface to be brushed clean,—and by means of said screw-threads said brush is detachably held in position on said shaft which is further provided with a pinion or small gear-wheel *e*—the lower hub of which is provided with a securing pin at *f*,—by which means said pinion is firmly but detachably connected to shaft *c*, thus allowing of said shaft and brush to be made adjustable when desired; and as the teeth of said pinion are in mesh with the teeth of the master-wheel or large gear-wheel G, provided with the handle *g*;—which is grasped in one hand while the other hand of the operator firmly grasps handle H of frame A; it will now be apparent that the brush may be held with the proper tension against the surface to be cleaned, and as said master-wheel—which is revolvably connected at *h* with said frame by any suitable form of spindle and bearing—is revolved or rotated, it will operate pinion *e* and shaft *c*, thus operating brush E.

For the purpose of raising the depressed portion, by depressing the raised portion around a tuft, thus bringing the material of which said tuft is composed on the same level or alinement, so as to be more readily cleaned; also, for the purpose of gaging the depth of the brush movement; as for example,—when it is desired in a factory or store to clean the depressed portions in the upholstery of large chairs or couches, where the depressions are all of a uniform size and depth,—I provide an annular base I, preferably constructed out of wire of a suitable size and terminating at its top in a loop or circle *k*—see Fig. 4—large enough in circumference to permit of the free action of said brush which it surrounds, said loop in practice being forced—through the medium of handle H—against the material around

the depression, and as the standard or supporting rod *l* of said annular base rests loosely in projections *m* and *n*, between which and said standard is located the spring or reacting member *o* bearing at its upper end against the stop formed by the split-pin *p*—which passes through said standard—its divided ends resting against guide flange *r* of frame A, as more fully shown in Fig. 4; thus permitting said annular base to have sufficient play when expanding or acting on the tufts or parts to be cleaned; but when it is desired to set said annular base in cleaning articles of furniture the depressions or tufts of which are of uniform size and depth throughout the several articles, all that is necessary is to depress annular base I to the desired depth of the brush in the depression, and by turning set-screw *s*—which has a screw-threaded engagement in projection *m* of frame A,—until standard or supporting rod *l* is tightly gripped or locked at this point; the stop *p* and guide-flange *r*, assisting in retaining said standard in position by preventing any lateral movement of same.

Having now described my revolving upholsterer's brush, what I claim is:—

1. In a rotary brush, the combination of an open base, a rod offstanding from said

base, a frame slidably mounted on said rod, a spring interposed between the frame and rod, a shaft rotatably mounted in said frame, the axis of the shaft extending approximately through the center of the base, inter-engaging means on said rod and frame whereby the rod is prevented from turning in said frame, a brush mounted on said shaft and means on said frame to rotate the shaft.

2. In an upholsterer's brush, the combination of the following elements, to wit:—a supporting-frame; a shaft provided with a small gear-wheel revolvably supported by said frame; a brush at end of said shaft; a master-wheel connected to said frame and adapted to actuate said gear-wheel; a spring actuated base connected by a rod to said frame; a set-screw connected to said frame for permitting said rod to be adjusted; inter-engaging means on said rod and frame whereby the rod and base are prevented from turning; all substantially as and for the purposes described.

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

DANIEL R. JOHNSON.

Witnesses:

W. S. RHOTEHAMEL,
SAMUEL BOYD.