No. 744,558. PATENTED NOV. 17, 1903.

L. G. KELLY.

BRUSH.

APPLICATION FILED MAR. 27, 1903.

NO MODEL.

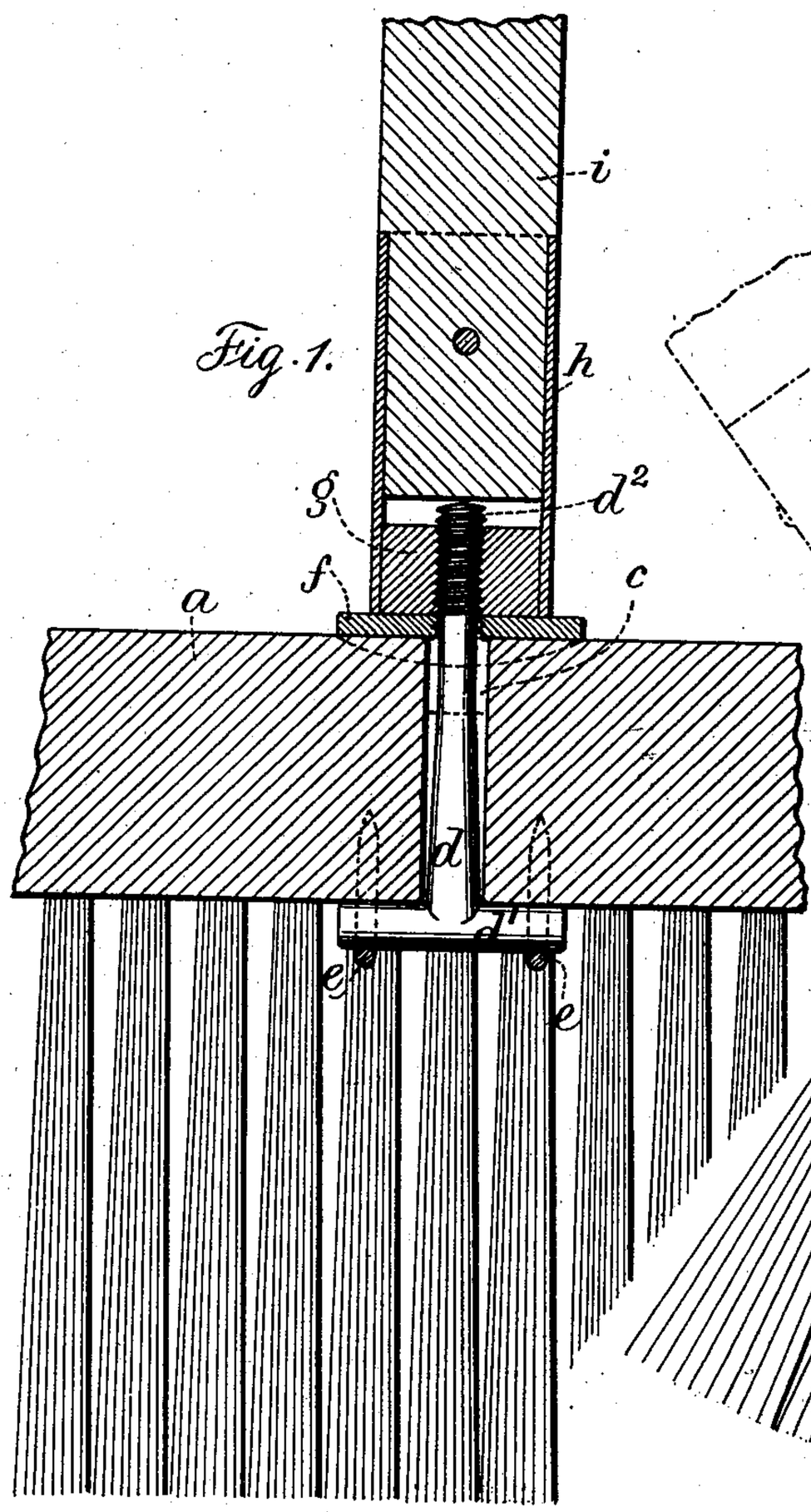

Fig. 1.

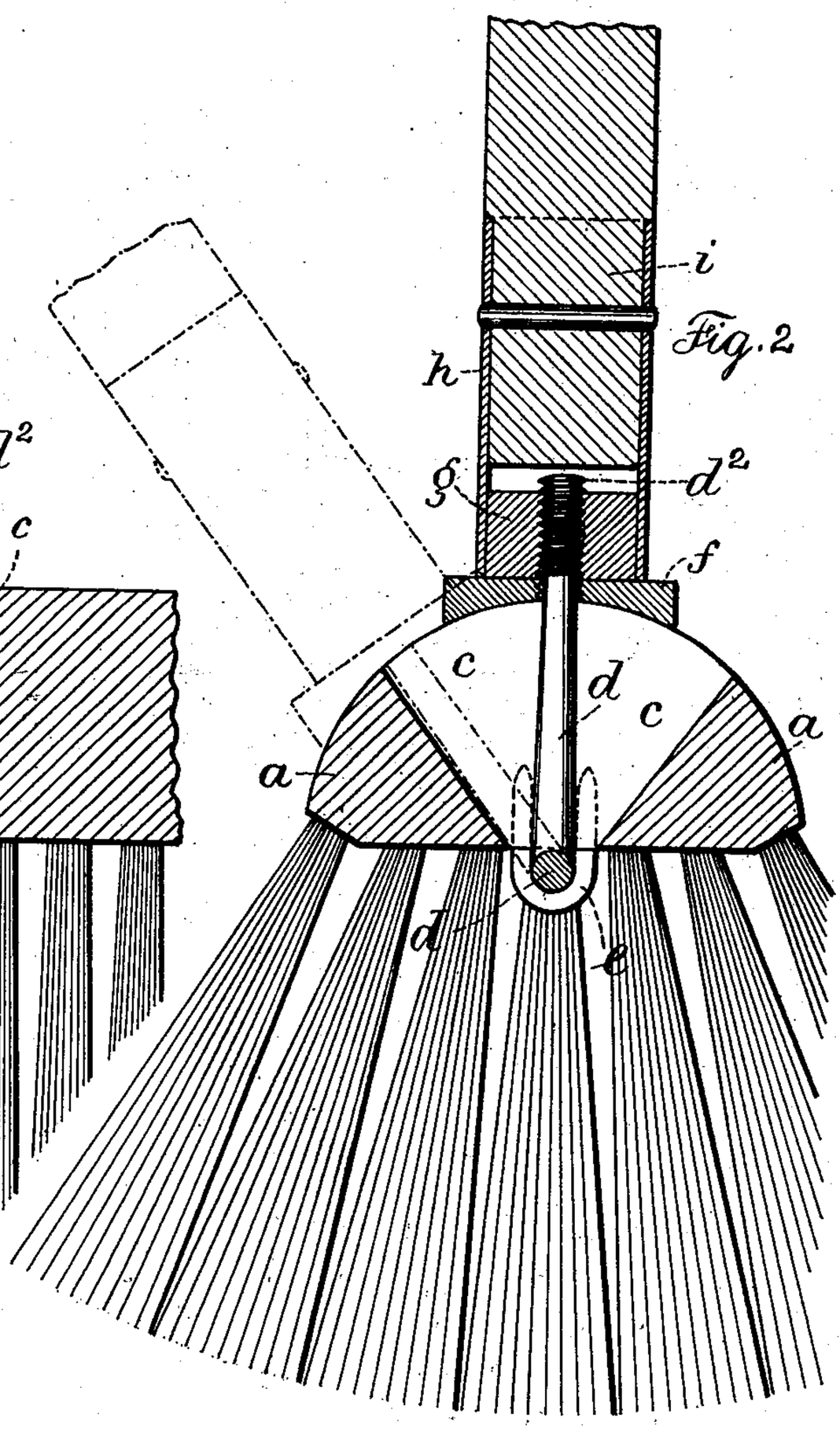

Fig. 2.

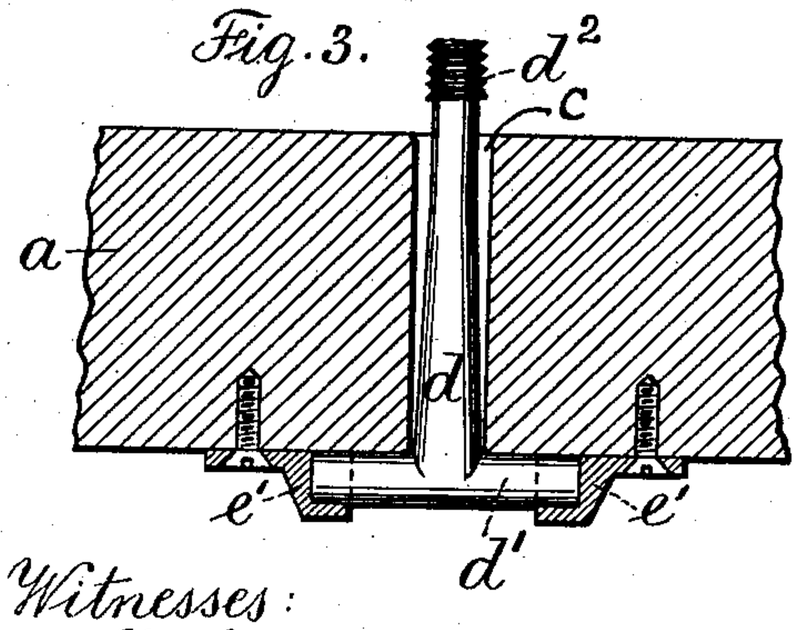

Fig. 3.

Witnesses:
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Inventor:
Lester G. Kelly
per Harold Serrell atty.

No. 744,558. Patented November 17, 1903.

UNITED STATES PATENT OFFICE.

LESTER G. KELLY, OF HEMPSTEAD, NEW YORK.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 744,558, dated November 17, 1903.

Application filed March 27, 1903. Serial No. 149,800. (No model.)

To all whom it may concern:

Be it known that I, LESTER G. KELLY, a citizen of the United States, residing at Hempstead, in the county of Queens and State of New York, have invented an Improvement in Brushes, of which the following is a specification.

My invention relates to an adjustable handle device for brushes of various forms and for similar implements of household use; and the object of my invention is to overcome difficulties that have heretofore existed in brushes and to make a brush that is both serviceable and convenient.

In carrying out my invention I form a transverse tapering mortise in the brush-back or in the back of the similar implement of household use, and I employ a metal stem in said mortise threaded at one end and having a T-head or cross-bar at the other end. The stem extends through the mortise. The T-head lies against the under surface and is held to the brush by suitable bearings or pivotal devices, so that the same may swing through the mortise. The stem passes through a friction-washer concaved on the under surface to fit the curved upper surface of the brush, and the threaded end of the stem enters a nut in one end of a sleeve or tube-section. A long wooden handle is secured in the sleeve. The rotation of the handle and sleeve in one direction forces the washer against the brush to clamp and securely hold the parts in a fixed relation for use. The rotation of the handle and sleeve in the opposite direction loosens the parts, permitting a movement thereof for altering the angular relation of the parts to the brush for use.

In the drawings, Figure 1 is a longitudinal section at the central part of the brush, illustrating my invention; and Fig. 2 is a cross-section of the same. Fig. 3 is a longitudinal section at the center of the brush, illustrating a modification of the invention.

The brush-body *a* is preferably of elongated form, substantially flat on the under side and curved on the upper side. The bristles or similar material are secured to the flat surface of the brush-body. In this brush-body *c* represents a central transverse tapering aperture. A stem *d*, of metal, is provided at one end with a T-head *d'* and at the other end with a threaded portion d^2. The stem portion passes through the central transverse tapering aperture *c*, and the T-head *d'* is placed longitudinally of the brush-body and connected to the brush-body by suitable devices *e*, connecting the T-head in a pivotal relation to the brush-body, so that the stem is free to swing through the central transverse tapering aperture *c*. In Figs. 1 and 2 these devices or bearings *e* are in the form of staples driven into the brush-body and extending around the T-head adjacent to its respective ends, while in the modified structure, Fig. 3, the bearing devices *e'* come at the opposite ends of the T-head in the form of cast sockets, screwed or otherwise fastened to the flat surface of the brush-body and covering the ends of the T-heads in a pivotal relation substantially the same as the staples. A friction-washer *f* of circular form with a flat upper surface and a concaved under surface surrounds the stem *d*, the concaved surface substantially conforming to the curved back of the brush-body and lying evenly against the surface of the same.

A tube section or sleeve *h* of suitable length and of a diameter adapted to receive a handle *i* of usual length and dimensions has secured in the lower end thereof a nut *g*, centrally perforated and interiorly threaded to screw upon the threaded end d^2 of the stem. The handle and the tube-section are preferably connected by a screw or pin, so as to fasten them together and compel the tube-section to turn when the handle is turned. The rotation of the handle and tube-section toward the brush-body forces the washer *f* against the surface of the body, applying a clamping strain to the stem *d* and T-head, so as to establish a firm and fixed relation of the handle and the brush-body. This relation is only limited by the swinging capacity of the stem *d* in the central transverse aperture *c*. Consequently the handle may stand vertical to the brush-body or at an inclination at either side of a vertical position, according to what may be desired in use, the reverse motion or unscrewing of the tube-section with reference to the stem producing a looseness of the parts, so that the handle can be swung and the reverse movement effecting the clamping action for firmly connecting the parts.

It will be noticed that in this construction the clamping action is one of compression between opposite surfaces of the material and not an effort to separate or force apart the particles of the brush-body and so to split or crack the same. Consequently the useful life of a brush or similar article of household use is prolonged.

I am aware that an adjustable handle-socket device has been shown and described in Letters Patent No. 716,077, which device in its entirety is adapted to be secured to the flat back or surface of a brush or similar article and which device possesses an adjustability providing for an inclination of the handle; but this structure is different from anything employed by me, and I distinctly disclaim the same.

I claim as my invention—

1. The combination with the body of a brush having a transverse aperture, of a stem passing through said aperture, means pivotally connecting the lower end of the same to the under surface of the brush-body, a threaded free projecting end to the stem, and means connected to a handle and engaging the threaded end of the stem for clamping the brush to the handle.

2. The combination with the body of a brush having a central transverse tapering aperture, of a stem of metal threaded at one end and having a T-head at the other end, said stem passing through said aperture, means for securing the T-head to the under surface of the brush-body in a pivotal relation, a tube section or sleeve adapted to be connected to a handle, a nut in the lower end of said tube-section adapted to screw upon the threaded portion of the stem so as to clamp the brush body and handle together.

3. The combination with the body of a brush having a central transverse tapering aperture, of a stem of metal threaded at one end and having a T-head at the other end, said stem passing through said aperture, means for securing the T-head to the under surface of the brush-body in a pivotal relation, a friction-washer surrounding said stem having an upper flat surface and an under surface conforming to the configuration of the back of the brush-body, a tube-section adapted to be secured to a handle, and a nut secured in the lower end of the tube-section and screwing upon the threaded end of the stem and adapted to bear upon the washer and force the washer into holding frictional contact with the brush-body to firmly connect the brush-body to the handle.

Signed by me this 24th day of March, 1903.

LESTER G. KELLY.

Witnesses:
GEO. T. PINCKNEY,
S. T. HAVILAND.