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R. C. HAMMILL.
TYPE CLEANING ATTACHMENT FOR TYPE WRITING MACHINES.

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Fig. 1.

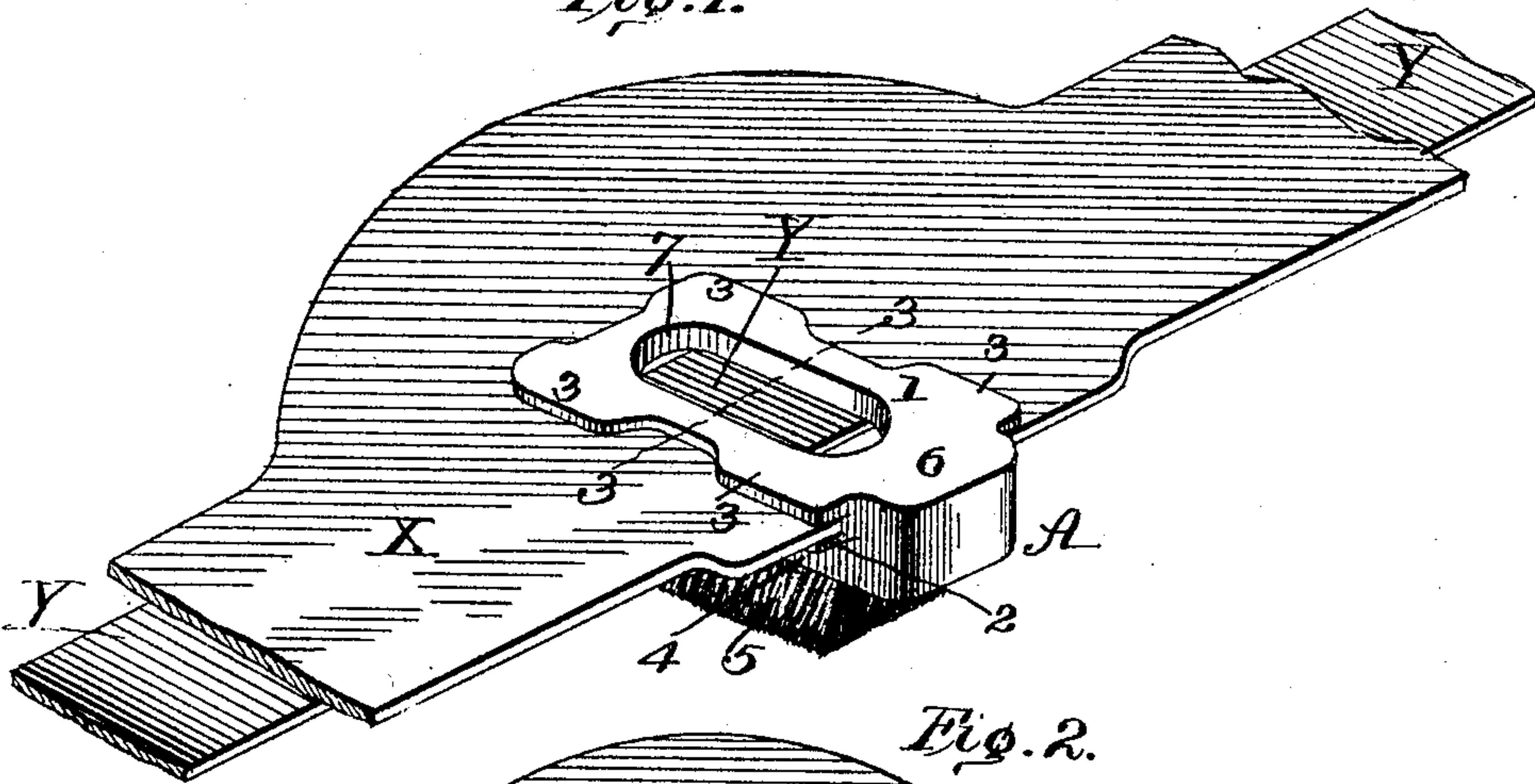
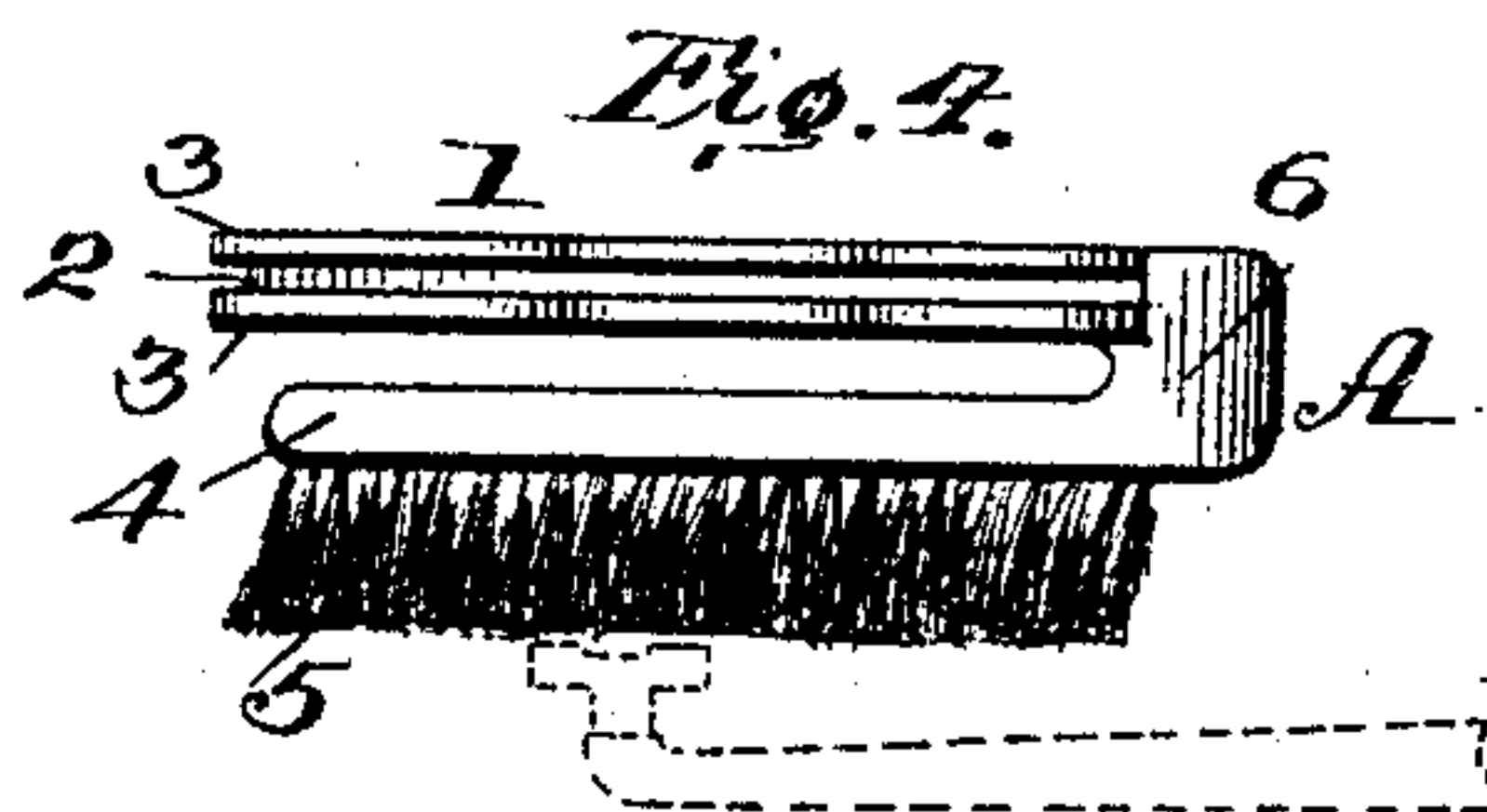
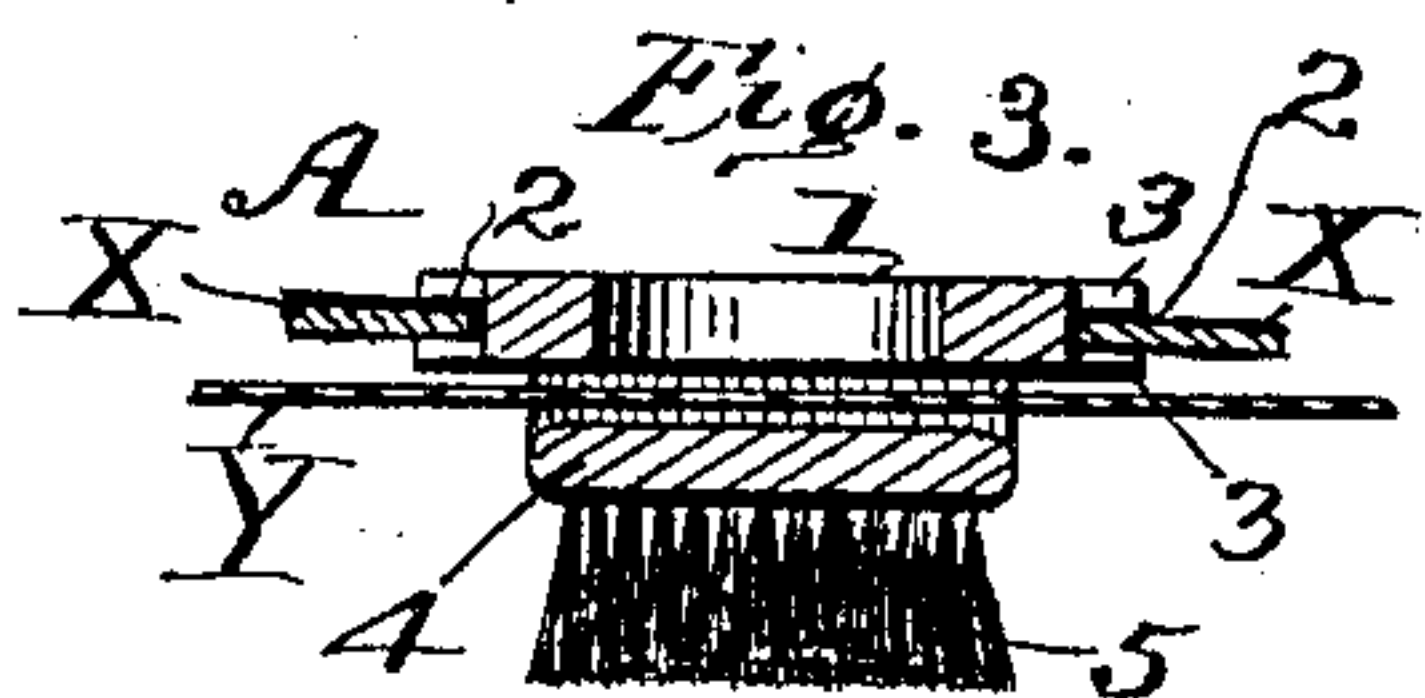
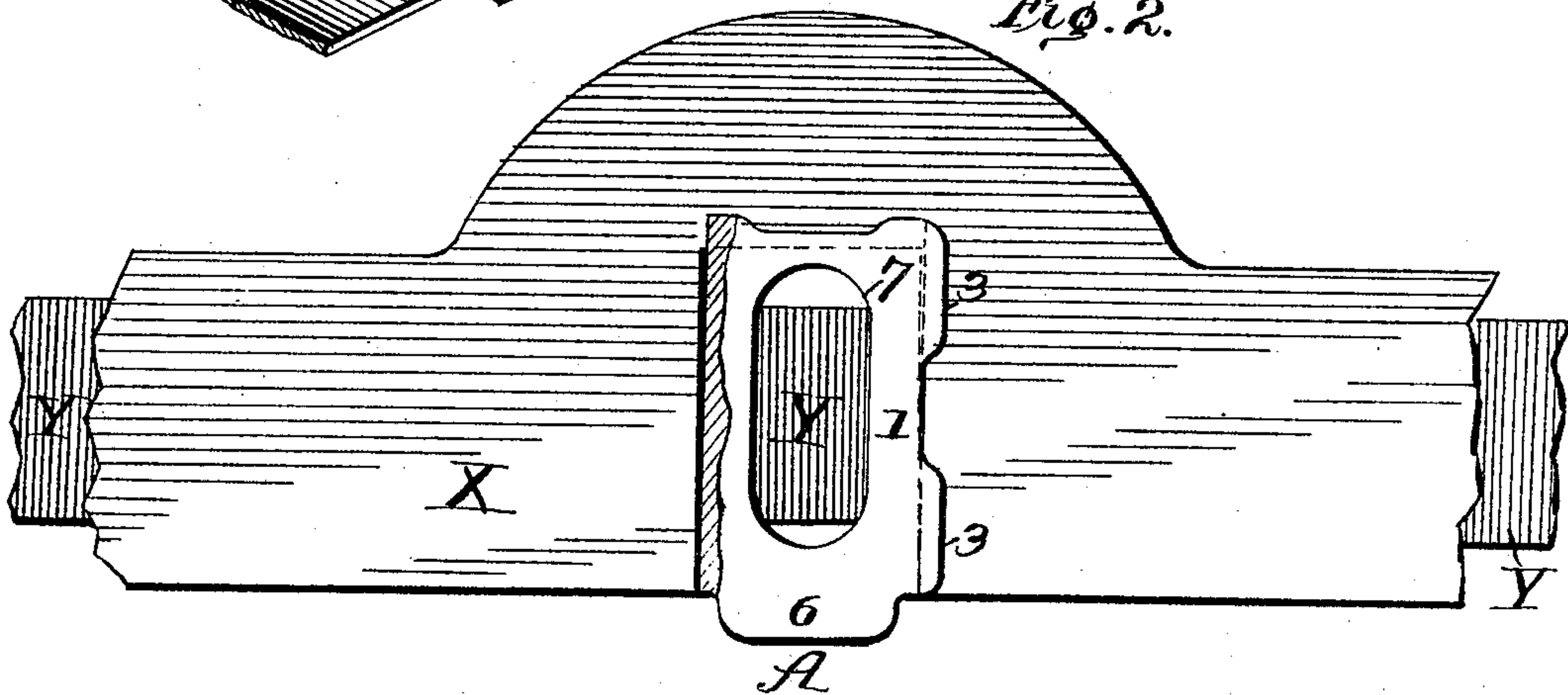


Fig. 2.



WITNESSES:
W. R. Taylor.
Amos W. Hart

INVENTOR:
R. C. HAMMILL.

BY *Munn & Co.*

ATTORNEYS

UNITED STATES PATENT OFFICE.

REUBEN C. HAMMILL, OF WOODBRIDGE, VIRGINIA, ASSIGNOR OF ONE-HALF TO JOHN H. LADD, OF FALLS CHURCH, VIRGINIA.

TYPE-CLEANING ATTACHMENT FOR TYPE-WRITING MACHINES.

No. 799,562.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, REUBEN C. HAMMILL, a citizen of the United States, and a resident of Woodbridge, in the county of Prince William and State of Virginia, have invented an Improved Type-Cleaning Attachment for Type-Writing Machines, of which the following is a specification.

My invention is a type-cleaning device adapted to be detachably secured to and supported by the ribbon-carrying bar or guide of type-writing machines of that class represented by the well-known "Remington," in which machines the type-carrying levers are hinged and pendent in a circle traversed diametrically by the ribbon-guide.

The peculiarities of construction and attachment of the device are as hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view illustrating the attachment of the invention to the ribbon-carrying bar or guide and the ribbon itself. Fig. 2 is a plan view of the same parts, a portion being broken away to illustrate a detail of construction. Fig. 3 is a cross-section on the line 3 3 of Fig. 1. Fig. 4 is a side view of the type-cleaning device.

In the several figures, A indicates the body of my improved type-cleaning device, X the ribbon bar, guide, or plate of a Remington and kindred machines, and Y the ribbon, arranged beneath it in the usual way. The upper portion 1 of my attachment is provided with side grooves 2, formed between the upper and lower flanges 3, whereby the same is adapted for attachment and self-support on the ribbon-bar X—that is to say, the part 1 is made of such width that it is adapted to be inserted in the opening provided in the center of the ribbon-bar X—the flanges 3 overlapping the sides of the plate bounding the opening, as will be readily understood from Figs. 1, 2, and 3. The rear or inner end of the device is also provided with a groove and flanges in a similar manner. The lower portion 4 of the device A constitutes the brush top or back, tufts of bristles 5 being inserted and held therein in a manner common in the construction of hair and tooth brushes. The parts 1 and 4 are preferably formed integral, the same being joined at the front of the device, as indicated at 6. Thus between the parts 1 and 4 there is a slot 6, which is of such di-

mension as required to receive the ribbon Y. The central portion of the part 1 is provided with an elongated slot 7, as shown in Figs. 1 and 2, which permits inspection of and access to the ribbon practically in the same manner as if the device were removed from the opening in the ribbon-guide X. In other words, the operator may observe the ribbon when inserting the device A in place, so as to avoid folding or wrinkling the same.

As apparent from the foregoing description, the device A is self-supporting in the opening of the ribbon plate or guide X, and it is also adapted for self-fastening or for being held securely therein by reason of the fact that its sides, or more particularly its side grooves, are formed on converging lines, as indicated in Fig. 2—that is to say, the body or part 1 is slightly tapered in the grooves 2—the space between the inner ends of the grooves being less than that between their outer ends, which is so related to the width of the opening in the bar X that when the device A is inserted, as shown in Figs. 1 and 2, it is wedged tightly, and thus practically locked in place. In manipulating the device for insertion or removal the projecting and rounded front end 6 serves practically as a finger-hold, since it may be readily grasped and held tightly between the thumb and index-finger.

As indicated in Figs. 1 and 4, the bristles are inclined rearwardly from the front end 6. By this arrangement the bristles are adapted to yield bodily upward under the force of the blows of the type when raised by the action of the keys, and when they return to their normal position by their own resilience the effect is to cause their ends or points to act on and clean the type very effectively. Besides this the bristles are less liable to be broken or mashed down than would be the case if they were set vertically, and thus practically in alinement with the direction of the blow of the type. It is to be understood, however, that any preferred arrangement of the bristles may be adopted and any other suitable elastic or soft cleaning material may be substituted for the bristles without departing from the principle of my invention. It is to be further understood that while I prefer to construct the parts 1 and 4, constituting the entire body of the device, in one piece, as shown, they may be constructed separately and rigidly attached. Further, it

is to be understood that the brush may constitute a separate attachment of the part 4.

The body or frame of the device A may be constructed of various materials having due
5 rigidity and strength, and I do not restrict myself in this particular.

The device is small in size, may be cheaply produced and easily and quickly applied to and removed from the ribbon-guide, is self-
10 fastening and self-supporting in the guide, and highly efficient in use.

What I claim is—

1. The combination, with a ribbon-guide of a type-writing machine, of a type-cleaning
15 device comprising a body portion having its sides constructed upon converging lines and made of such width in one part relative to the notch, or opening, in the guide that, when inserted in place, it is wedged and held by
20 friction, substantially as described.

2. The combination, with the ribbon-guide of a type-writing machine of a type-cleaning device comprising a brush and a top portion adapted for engagement with the side edges
25 of the opening in the guide and separated from the brush portion by a slot adapted to receive the ribbon, and constructed with a vertical slot through which the ribbon is visible and accessible, substantially as described.

30 3. The improved type-cleaning attachment for type-writing machines comprising a body

portion having side edges adapted for engaging the side edges of the opening in a ribbon-guide whereby the device as a whole is adapted for self-support and self-fastening in the
35 guide, and a brush-carrying portion which is separated from the top portion by an open slot adapted to receive the ribbon of a machine, substantially as described.

4. A type-cleaning attachment for type-
40 writing machines comprising a body portion having parallel flanges extending along its side edges and separated by grooves whose bottoms are formed on converging lines, and a lower portion having a brush affixed thereto,
45 the two portions being separated by an open slot, substantially as described.

5. The improved type-cleaning attachment comprising a top or body portion adapted for engagement with the side edges of the open-
50 ing in a ribbon-guide, the contact portions of such side edges being formed on converging lines, a lower portion carrying a brush and an end portion connecting the upper and
55 lower portions and adapted to serve as a finger-hold in inserting and removing the device, substantially as described.

REUBEN C. HAMMILL.

Witnesses:

H. P. CLARKE,
W. H. ALLEN.