

(No Model.)

T. H. STACKHOUSE.

TYPE CLEANING DEVICE FOR TYPE WRITING MACHINES.

No. 472,720.

Patented Apr. 12, 1892.

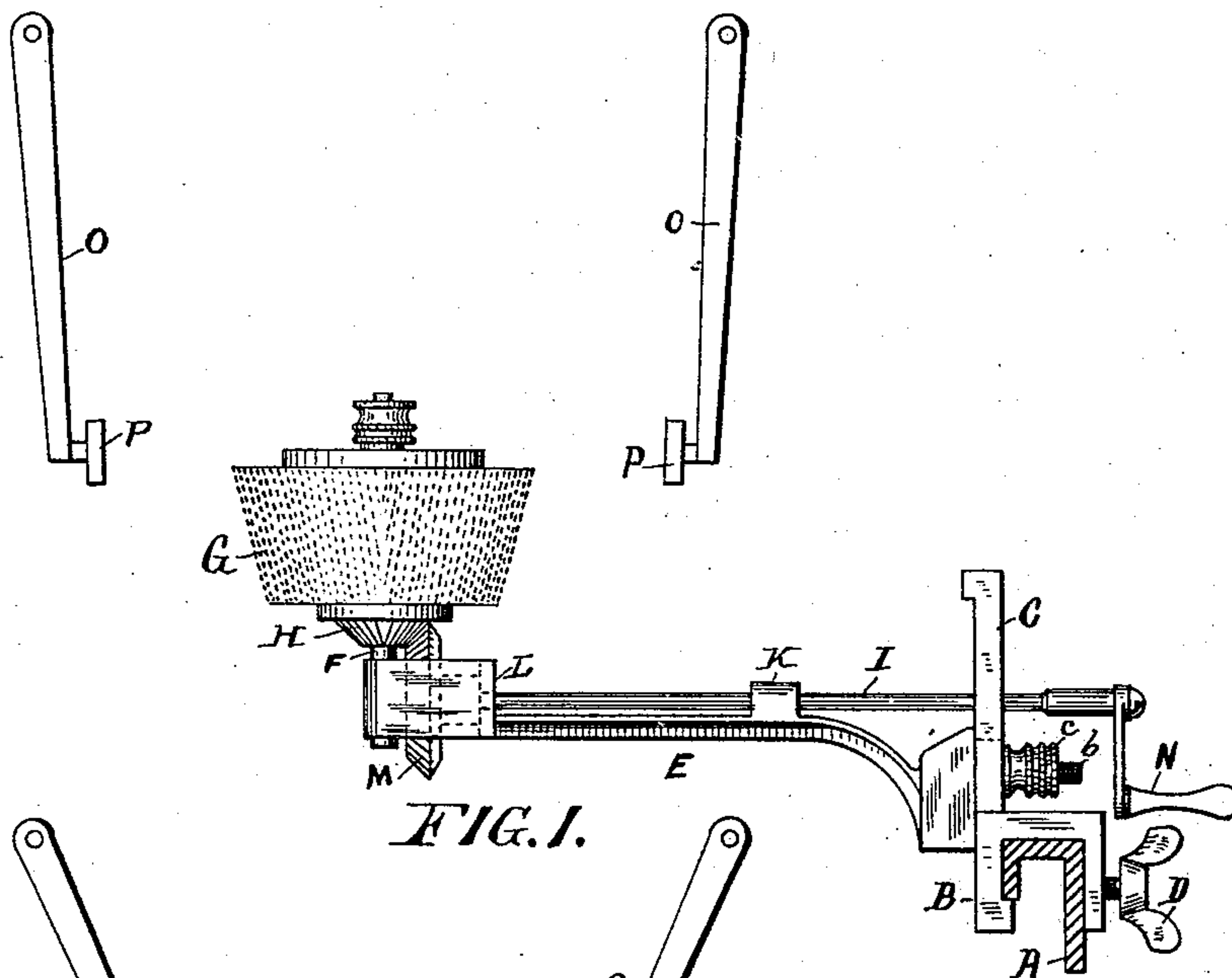


FIG. 1.

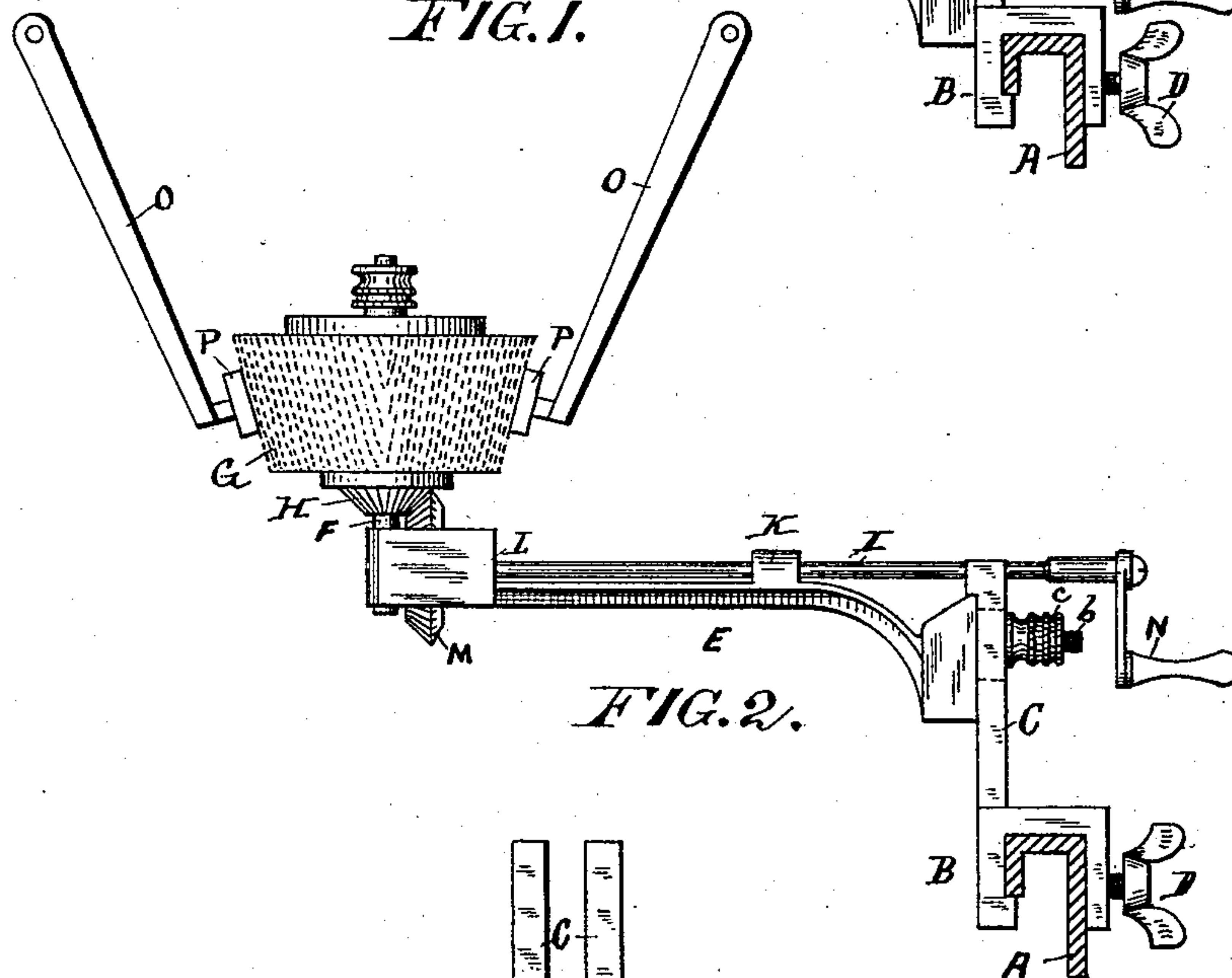


FIG. 2.

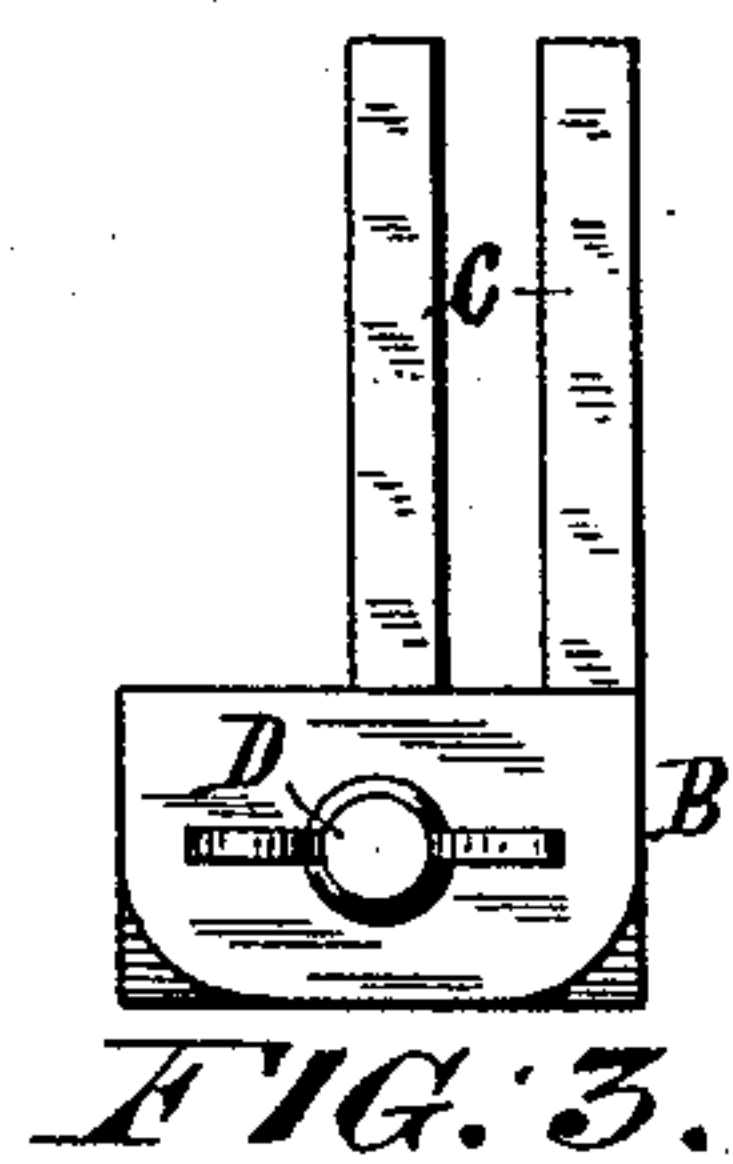


FIG. 3.

WITNESSES:

*Anthony Simpson*  
*Wm. Dudley Brown*

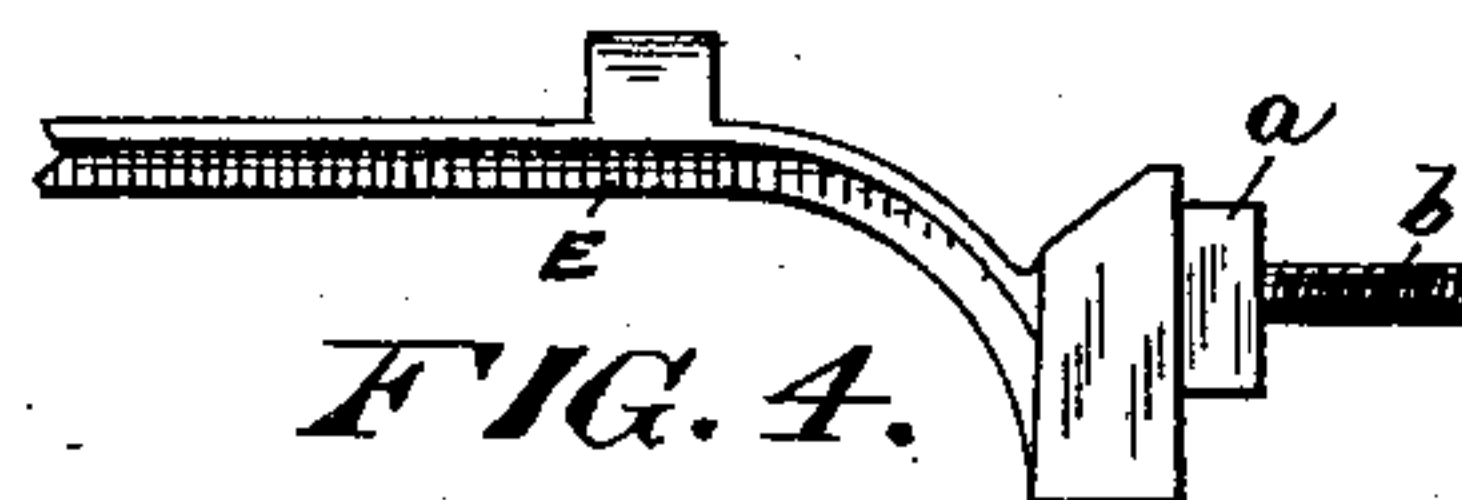


FIG. 4.

INVENTOR

*Thomas H. Stackhouse*  
*by his attorney*  
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# UNITED STATES PATENT OFFICE.

THOMAS H. STACKHOUSE, OF PHILADELPHIA, PENNSYLVANIA.

## TYPE-CLEANING DEVICE FOR TYPE-WRITING MACHINES.

SPECIFICATION forming part of Letters Patent No. 472,720, dated April 12, 1892.

Application filed January 2, 1892. Serial No. 416,785. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS H. STACKHOUSE, a citizen of the United States, and a resident of the city and county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Devices for Cleaning the Type of Type-Writing Machines, of which the following is a specification.

The object of my invention is to furnish a device for cleaning the type of type-writing machines which will be rapid and effective in its operation, which can be used equally well in machines in which the type-bars are set in circles or ellipses, and which can be thrown into or out of position to clean the type by the operator instantly and without danger of soiling the hands.

My invention consists of a bracket which is attached to the lower frame of the type-writing machine and which is furnished with vertical guides in which or upon which an arm is carried, which is adapted to be raised or lowered on the guides and clamped at any point on them. Upon the inside end of the arm is carried in suitable bearings a brush having the shape preferably of a truncated cone. Upon the shaft which carries the brush is a bevel-gear, and upon the end of a shaft carried in suitable bearings upon the arm is a bevel-gear gearing into gear upon the brush-shaft and driving it. Upon the outside end of this second shaft is a crank, by means of which this shaft, the bevel-gears, and brush may be driven.

In the accompanying drawings, forming part of this specification, and in which similar letters of reference indicate similar parts throughout the several views—

Figure 1 is a side elevation of my device, the brush and its connected parts being lowered; Fig. 2, a similar view, the brush and its connected parts being raised into position to clean the type; Fig. 3, an end elevation of the bracket for carrying the brush and its connected parts, and Fig. 4 a side elevation of the outside end of the arm for carrying the brush.

A, Figs. 1 and 2, represents part of the lower frame of a type-writing machine.

B is a bracket, which carries guides C and

which is secured to the frame A by means of a thumb-screw D or in any other suitable manner.

E is an arm, the rear end of which is furnished with a projection *a*, Fig. 4, which passes between the guides C, and with a screw *b* and thumb-nut *c*, by means of which the arm E may be tightly drawn and clamped against the guides C in order to hold the arm E at any height on the guides C.

F is a shaft carried in suitable bearings upon the inside end of arm E. G is a brush carried by this shaft, and H a bevel-wheel upon this shaft.

I is a horizontal shaft carried in suitable bearings K L on arm E; M, a bevel-wheel upon the inside end of this shaft gearing into bevel-wheel H, and N a crank upon its outside end.

O represents the type-bars, and P the type carried by the type-bars.

In Fig. 1 the device is shown with the arm E, the brush G, and their connected parts dropped down so as to be out of the way of the type-bars. In Fig. 2 the device is shown raised, so that the brush G may clean the type, which is done by turning the crank N, which, through shaft I, bevel-gears M H, and shaft F revolves the brush G. The arm E is held at any height on the guides C by tightening the thumb-screw *c* on the screw *b*. The brush G is conical in shape, as shown, and the cleaning of the type is done at some point between the lower point of rest of the type-bars and the point at which the type impinge upon the platen. The brush is made of a thickness sufficient to clean the type on both the longer and shorter bars of those machines that have type-bars of different lengths. When it is desired to clean the type, the arm E is raised, as shown in Fig. 2, and clamped fast to the guides C. Several of the keys of the machine are operated to throw their type-bars against the brush G, which is revolved by means of the crank N, as already described, and after all the type have been cleaned the arm E and brush G are dropped to the position shown in Fig. 1, where they are entirely out of the way of all the working parts of the machine.

I am aware that brushes actuated by gear-wheels and shafts have before been used to



clean the type of type-writing machines. I do not, therefore, claim such devices broadly; but

What I do claim is—

- 5 1. The combination, with a type-writing machine, of a guide carried by the frame of the machine, an arm carried by this guide and adapted to be raised or lowered on this guide, a set-screw or thumb-nut for clamping the said  
10 arm and guide, a vertical shaft upon the inside end of said arm, a conical brush and a gear-wheel carried by said vertical shaft, a shaft carried by said arm, a gear-wheel carried by said shaft and gearing into gear-wheel on said  
15 vertical shaft, and a crank for revolving said second shaft, all substantially as and for the purposes set forth.

2. The combination, with a type-writing machine, of a conical brush, a vertical shaft upon which said brush is mounted, a horizontal 20 shaft, gear-wheels upon said shafts meshing with each other, an operating-crank upon said horizontal shaft, a horizontal arm carrying said shafts and their connected parts, and means, substantially as described, for carry- 25 ing this horizontal arm and for adjusting it and the horizontal shaft and their connected parts vertically, substantially as and for the purposes set forth.

THOMAS H. STACKHOUSE.

Witnesses:

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CHAS. A. RUTTER.