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PATENTED JUNE 5, 1906.

C. F. WASHBURN.
TYPE WRITER ATTACHMENT.
APPLICATION FILED DEC. 24, 1903.

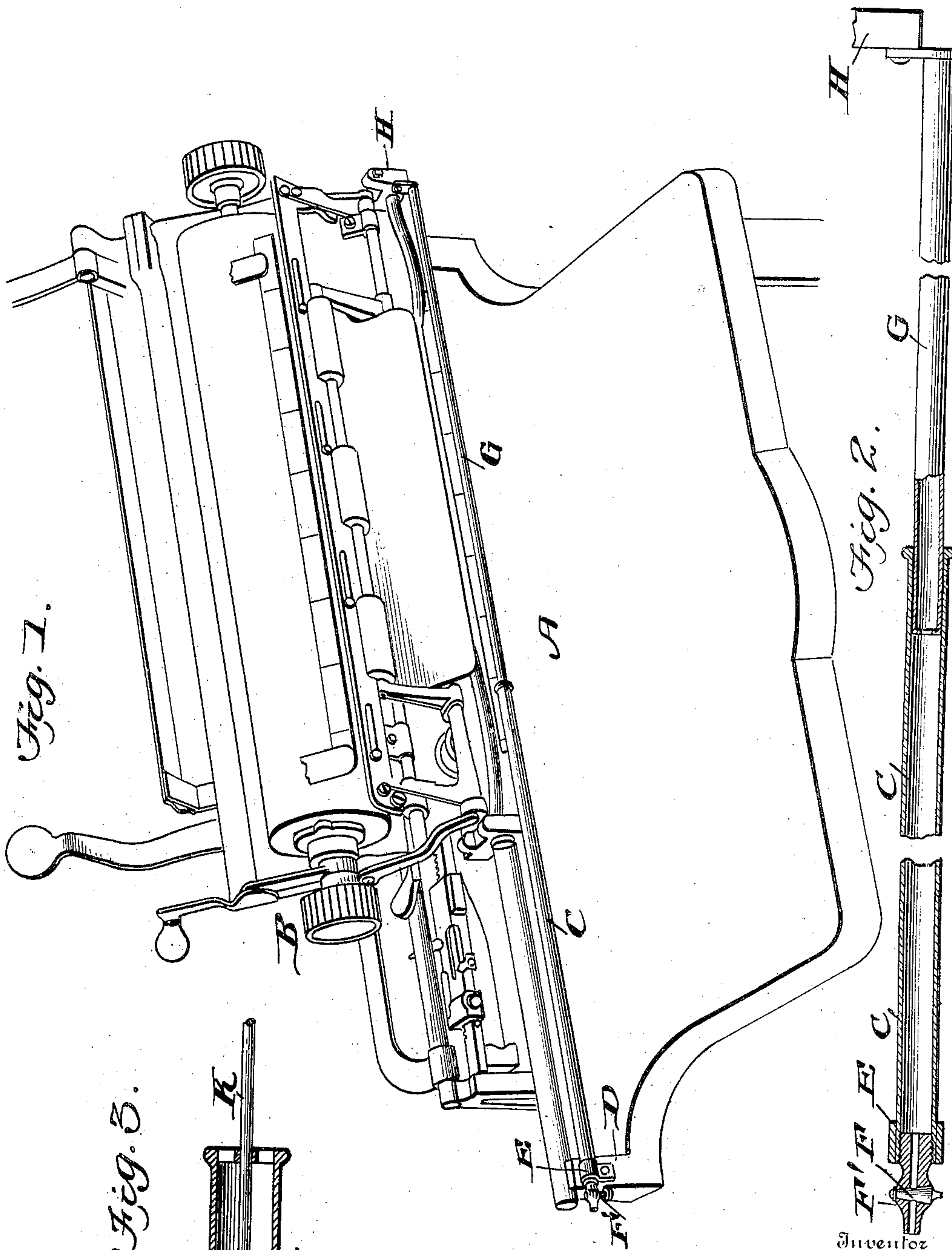


Fig. 1.

Fig. 2.

Fig. 3.

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TYPE-WRITER ATTACHMENT.

No. 822,327.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed December 24, 1903. Serial No. 186,466.

To all whom it may concern:

Be it known that I, CHARLES F. WASHBURN, a citizen of the United States, residing at New London, in the county of New London and State of Connecticut, have invented a new and useful Type-Writer Attachment, of which the following is a specification.

This invention relates generally to type-writing machines, and particularly to tabulating-machines in which the carriage is caused to move rapidly and stop suddenly, as when moving from the position of thousands to hundreds, and from hundreds to tens, and from tens to units, and from units to decimals. In machines of this kind sudden stopping or checking of the carriage at the predetermined point is liable to cause the various parts to get out of order; and the object of my invention is therefore to provide a machine of this character with a pneumatic buffer, thereby taking up the sudden jar incidental to the sudden stopping of the carriage.

With this object in view my invention consists, essentially, in the employment of a cylinder or tube fixed to the frame of the machine and having a cylinder or tube which is fixed to the carriage sliding therein. The fixed tube or cylinder has a valve-outlet, by means of which the escape of air from the cylinder can be regulated.

The invention also comprehends the use of a piston sliding in the cylinder, said piston being connected to the carriage of the machine.

The invention consists also in certain details of construction hereinafter fully described, and pointed out in the claim.

In the drawings forming part of this specification, Figure 1 is a perspective view showing the practical application of my invention, a portion of the type-writer being shown in order to illustrate the relative position of the various parts of my invention. Fig. 2 is a detail view of my improvement, partly in section and partly in elevation. Fig. 3 is a detail view showing the slight modification.

Referring to the drawings, A indicates a

stationary portion or frame of the type-writer, and B the carriage.

A cylinder or cylindrical tube C is rigidly secured to the left-hand post D of the frame by means of a suitable clip E, the outer end of said cylinder having a valve-plug F threaded therein, the valve F' being capable of regulation, so that the escapement of air from the cylinder can be regulated with accuracy.

Sliding in the cylinder C is a piston G, fastened to the right-hand member H of the carriage, and this piston may be tubular or cylindrical in form, as shown in Figs. 1 and 2, or it may be solid, as shown at I in Fig. 3, said piston being arranged upon the end of the rod K, said rod being attached to the member H in the same manner as the cylinder G.

Thus it will be seen that when the carriage moves rapidly from right to left, the piston sliding in the cylinder will compress or partially compress air contained therein, and this pneumatic cushion will serve to partially check the movement of the carriage, so that when the movement of said carriage is arrested by means of the stops the stop will not be so sudden as it would have been had the pneumatic cushion not been employed.

By means of this construction the machine is not subject to sudden jars and the various parts are not so likely to get out of order.

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

An attachment for tabulating type-writers, comprising a cylinder arranged on the frame of the type-writer adjacent to and parallel with the carriage and open at its inner end, a valve-plug threaded into its outer end, an adjustable valve in said plug, and a piston attached to the carriage and adapted to slide in the cylinder and check movement of the carriage in one direction.

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