

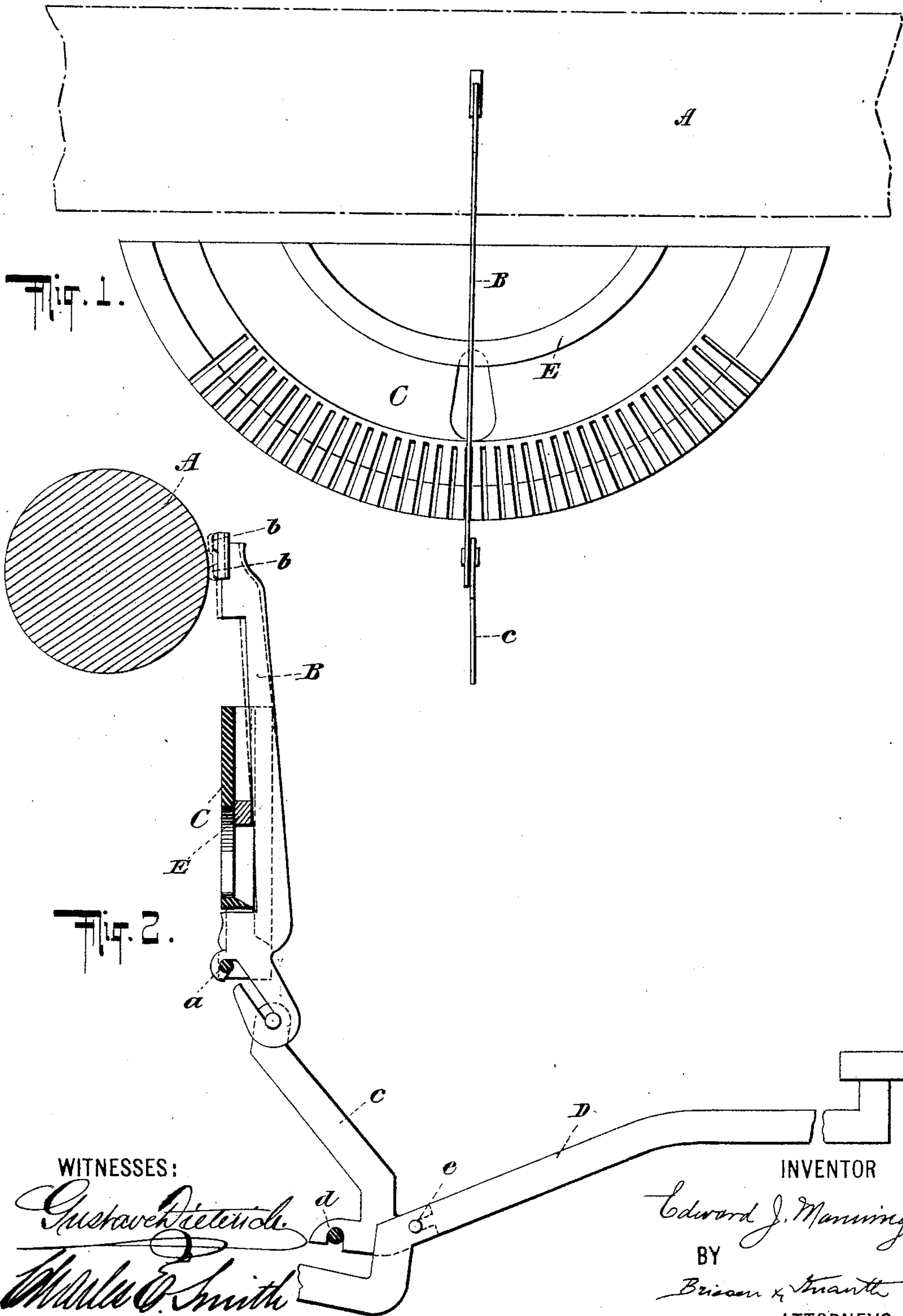
No. 612,858.

Patented Oct. 25, 1898.

E. J. MANNING.  
TYPE WRITING MACHINE.

(Application filed May 26, 1897.)

(No Model.)



WITNESSES:

*Gustave Dietrich*  
*Wm. O. Smith*

INVENTOR

*Edward J. Manning,*  
BY  
*Brisson & Stuart*  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

EDWARD J. MANNING, OF NEW YORK, N. Y., ASSIGNOR TO THE WAGNER  
TYPEWRITER COMPANY, OF SAME PLACE.

## TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 612,858, dated October 25, 1898.

Application filed May 26, 1897. Serial No. 638,190. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD J. MANNING, a resident of the city, county, and State of New York, have invented certain new and  
5 useful Improvements in Type-Writing Machines, of which the following is a specification.

My invention relates to type-writing machines of that character known as "bar-machines," wherein one or more types are carried upon each of a series of type-bars, which are adapted to be oscillated to cause the types thereon to contact with the paper carried upon a suitable platen or paper-support.

15 Heretofore in type-writing machines of the character to which this invention relates great difficulty has been experienced because of the liability of a type giving a double impression when only a single impression is desired. This is largely due to the type-bars being set in vibration by the impact of the type against the platen to cause the initial imprint to be made upon the paper. The second or third impression is given by the type-bar vibrating while the type thereon is still in contact with the platen or the paper on the platen. It is essential that the type-bars have considerable length and that they be  
25 made as thin as possible in order that sufficient leverage be given to cause the imprint to be made without difficulty, to allow the type-bars to be mounted in the smallest possible space, and to enable them to be made as light as possible consistent with the work  
35 that is required of them. For these reasons it will be understood that the type-bars cannot be made of such proportions that the liability of vibration will be decreased except at the sacrifice of other important features of  
40 the machine.

The object of my invention is to effectively overcome the liability of a double impression being made without shortening the length of the type-bar or increasing the thickness thereof, the invention, on the other hand, allowing,  
45 when desired, of the type-bar being made of greater length and of less thickness than has been practicable heretofore.

To these ends my invention consists in the  
50 novel arrangement and combination of parts

hereinafter pointed out and claimed, reference being had to the accompanying drawings, wherein—

Figure 1 is a face view of a sufficient number of parts of a type-writing machine to illustrate my invention. Fig. 2 is a central transverse section of the same.

In the drawings, A represents a platen or paper-support. A type-bar B of any suitable or preferred construction is employed, which in the present instance is shown as being pivoted at *a* to a portion of the framing C of the machine. This type-bar B may carry one or more types *b*, two being shown in the present instance. Where more than one type is employed on a single type-bar, it will be understood that means are provided for shifting the platen A to bring the printing-point thereon in the proper position for impact of the type it is desired to imprint upon the paper.

For the purpose of clearness of illustration the ribbon has been omitted from the drawings. It will be understood, however, that a ribbon may be employed interposed between the face of the type and the platen in the usual manner. Connected with the type-bar B is a link *c*, which is pivoted to the framing of the machine, as illustrated at *d*, and which is connected with a suitable type key-lever D, as indicated at *e*.

While I have shown and described a single type-bar and its operating mechanism, it will be understood that a series of type-bars each carrying one or more types is mounted in a circle or otherwise around the printing-point on the platen and that for the purposes of my invention any oscillatory type-bars may be employed.

Carried by the framing C of the machine is a universal rigid abutment E, which is preferably formed as a portion of a circle concentric with the pivots of the series of type-bars. All portions of the contact-face of this abutment are preferably the same distance from the printing-point on the platen and are situated, preferably, in the same plane. This abutment is or may be mounted so that each of the type-bars will contact therewith intermediate of its length and will normally maintain  
90  
95  
100

tain said type-bars out of contact with the platen or the paper carried thereon when the parts are in the position which corresponds to the ordinary position, as is represented in full lines in Fig. 2 of the drawings. When, however, a type-bar is operated in the ordinary manner by means of its key-lever D, the type-bar will be oscillated around its pivot and will be carried in contact with the abutment E with considerable force, thereby deflecting or springing the upper portion of the type-bar, so that a type thereon will contact with the paper on the platen, as indicated in dotted lines in Fig. 2. The abutment E will, however, prevent the type on the type-bar from reaching contact with the platen after the initial impression has been given, so that the vibrations which are produced by operating the type-bar will be ineffectual to produce an impression upon the paper.

While I have shown and described certain features illustrating one form of my invention, I would have it understood that I do not wish to limit myself to the construction shown and described, inasmuch as I am aware that various modifications may be made in details of construction without departing from the spirit of my invention. Thus, for instance, each of the type-bars may be made to carry a projecting lug, which is adapted to abut upon a stationary portion of the machine before the type itself reaches contact with the platen, and a universal bar E be entirely dispensed with.

It will be seen that by my invention I have provided a simple, cheap, and efficient means for overcoming the difficulties heretofore found in bar type-writing machines of giving a double impression without in any way detracting from other features of the machine. It will also be observed that by mounting the abutment E in the manner shown each of the type-bars will strike thereon at the same distance from the printing-point, so that the contact of the types on the platen is the same throughout the series, it also being understood, of course, that in order to accomplish

this result all portions of the faces of the abutment E must be on the same plane.

I am aware that heretofore machines have been devised wherein abutments have been provided against which type-bars are adapted to bear to take the strain off of other portions of the bars or to prevent the type from being projected against the platen with undue force; but the objects in these cases are essentially different from those attained by me and the means for their attainment are different.

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

1. In a type-writing machine, the combination of a suitable platen or paper-support, an oscillatory type-bar, a finger-key for operating said type-bar, and a rigid abutment with which said type-bar is adapted to reach contact before a type thereon reaches contact with the platen, substantially as described and for the purpose specified.

2. In a type-writing machine, the combination of a suitable platen or paper-support, a pivoted oscillatory type-bar, a finger-key for operating said type-bar and a rigid abutment with which said type-bar is adapted to reach contact intermediate of its ends before a type thereon reaches contact with the platen, substantially as described and for the purpose specified.

3. In a type-writing machine, the combination of a suitable platen or paper-support, an oscillatory type-bar normally out of contact with the platen and in contact with a rigid abutment when the type-bar is in the position which corresponds to the printing position but which is adapted to be sprung into contact with the platen by an oscillation of the type-bar, and a finger-key for operating said type-bar, substantially as described and for the purpose specified.

EDWARD J. MANNING.

Witnesses:

CHARLES E. SMITH,  
GEO. E. MORSE.