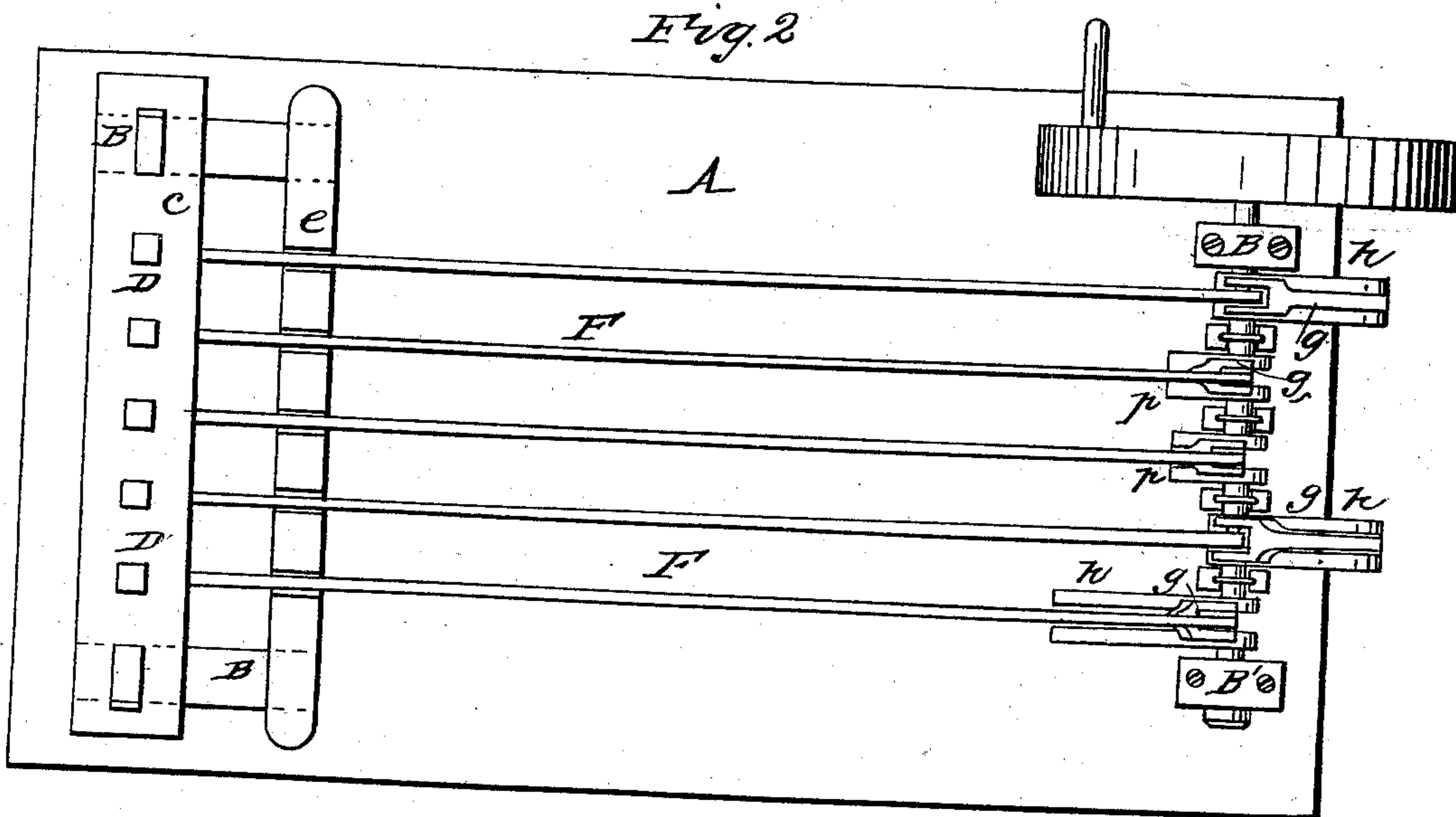
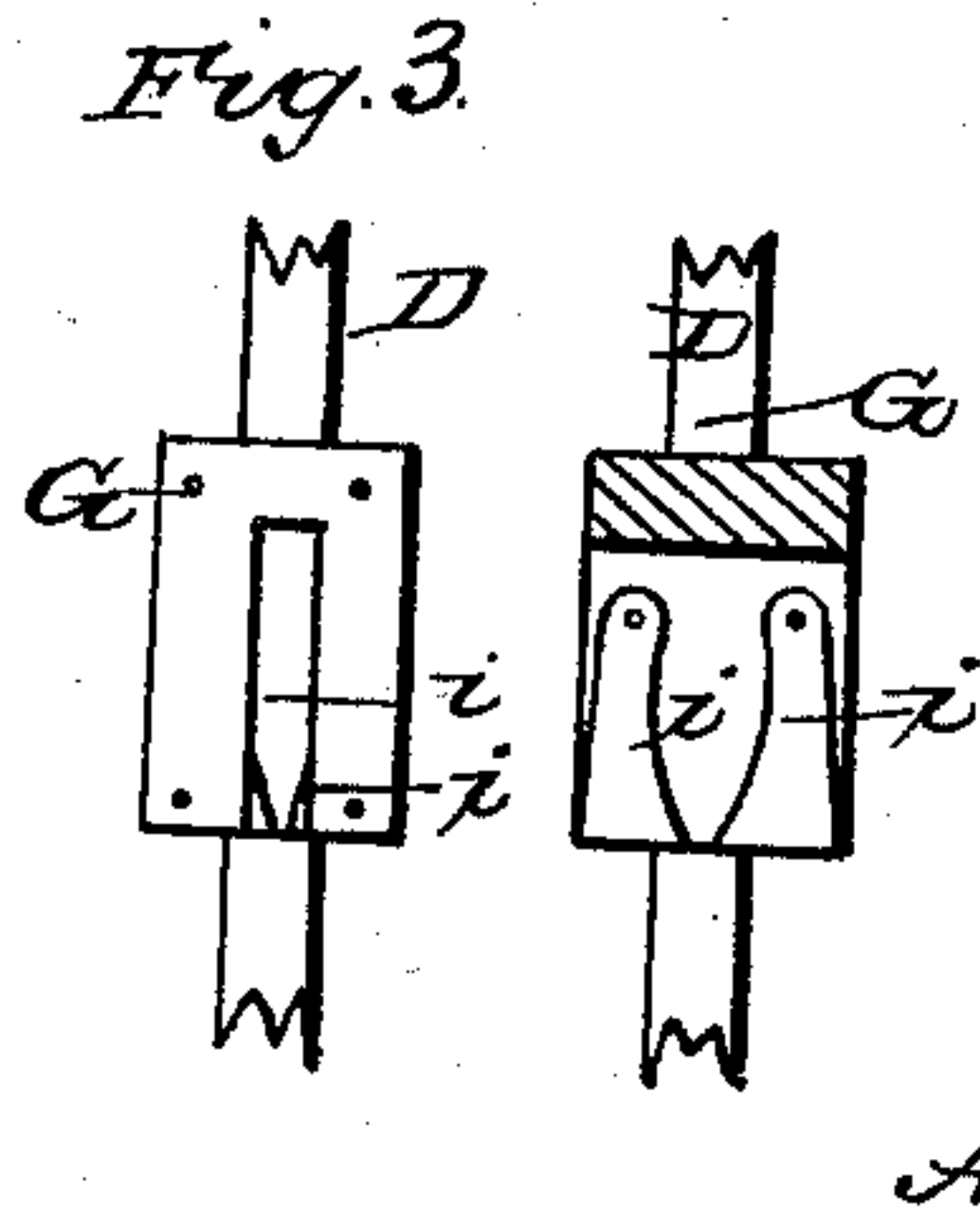
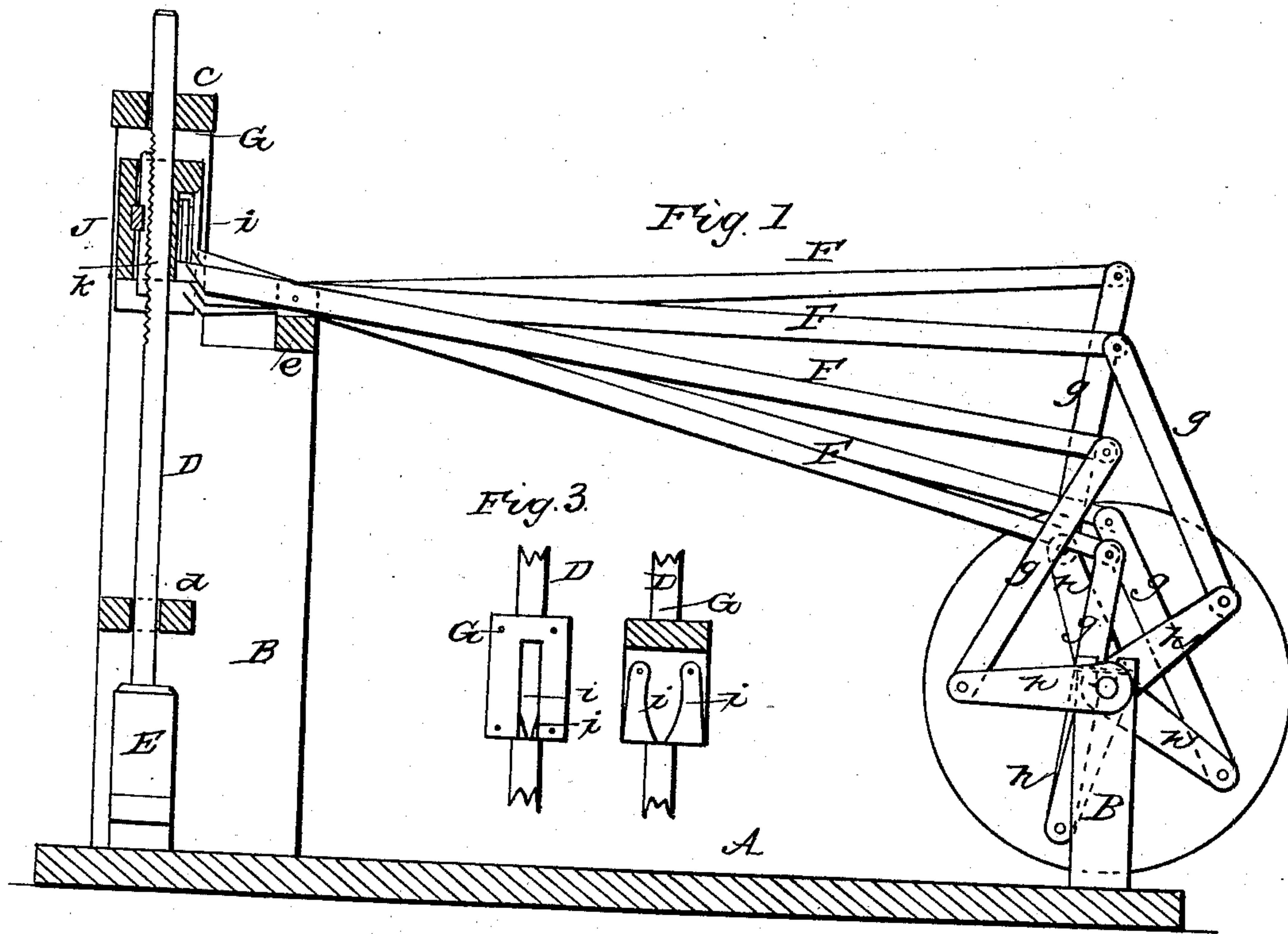


A. HERDLEIN.

Ore Stamp.

No. 56,047.

Patented July 3, 1866.



WITNESSES

W. H. Houghton
J. M. Brown

INVENTOR

A. Herdlein
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attys

UNITED STATES PATENT OFFICE.

ALEXANDER HERDLEIN, OF EGAN CAÑON, NEVADA.

IMPROVEMENT IN QUARTZ STAMP-MILLS.

Specification forming part of Letters Patent No. 56,047, dated July 3, 1866.

To all whom it may concern:

Be it known that I, ALEXANDER HERDLEIN, of Egan Cañon, in the county of Lander and State of Nevada, have invented a new and Improved Stamp-Mill; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a longitudinal vertical section of this invention. Fig. 2 is a plan or top view of the same. Fig. 3 is a front elevation of the adjustable tappet-head of one of the stampers. Fig. 4 is a section of the same.

Similar letters of reference indicate like parts.

This invention consists in the arrangement of double-armed levers, the long arms of which are ten times (more or less) longer than their short arms, in combination with the stamper and with suitable cranks or eccentrics on the driving-shaft, in such a manner that by the assistance of said double-armed levers the operation of raising the stampers is facilitated and the number of blows of each stamper can be increased to almost any desired number of blows per minute without danger of having the wiper or wipers come in contact with the descending tappets.

It consists, further, in the arrangement of hinged tappets, in combination with the stampers and levers, in such a manner that in going up the levers strike the flat ends of said tappets, and thereby the stampers are raised and dropped when the points of the levers release said tappets, but in going down the ends of said levers strike the inclined edges of said tappets and force them open, allowing them to pass through without obstruction.

It consists, finally, in the arrangement of a toothed clamping-bar, in combination with the tappet heads and shanks of the stampers, in such a manner that said tappet-heads can be adjusted according to the height to which it is desired to raise the stampers.

A represents a bed-plate or frame, of wood

or any other suitable material, from which rise the standards B B', and the standards B are connected by cross-bars *c d e*, whereas the standards B' form the bearings for the driving-shaft C.

The cross-bars *c* and *d* form the guides for the shanks D of the stampers E, and the cross-bar *e* forms the bearing for the fulcrum-pins *f* of the levers F. The long arms of these levers connects by suitable rods *g* with cranks on the driving-shaft, and said long arms are much longer than the short arms, about in the proportion of ten to one, or in any other suitable proportion. The short arms of the levers F, in rising, catch against the ends of tappets *i*, which are suspended freely from suitable pins in the heads G. In striking the flat ends of these tappets the levers raise the stampers until their points release said tappets and allow the stampers to drop. As the short arms of the levers descend they strike against the inner inclined edges of the tappets, (see Fig. 4,) and force the same open, so that they can pass through between them without obstruction.

The tappet-heads G are secured to the shanks of the stampers by wedges or keys *j* and serrated bars *k*, the teeth of which catch into corresponding teeth on the backs of the shanks D. By these means said heads can be readily raised or lowered to decrease or increase the height to which the stampers are to be raised.

What I claim as new, and desire to secure by Letters Patent, is—

1. The double-armed levers F, in combination with the stampers E and cranks or other equivalent devices on the driving-shaft C, constructed and operating substantially as and for the purpose described.

2. The hinged tappets *i*, in combination with the adjustable heads G, levers F, and stampers E, constructed and operating substantially as and for the purpose set forth.

The above specification of my invention signed by me this 5th day of January, 1866.

ALEXANDER HERDLEIN.

Witnesses:

M. M. LIVINGSTON,
W. HAUFF.