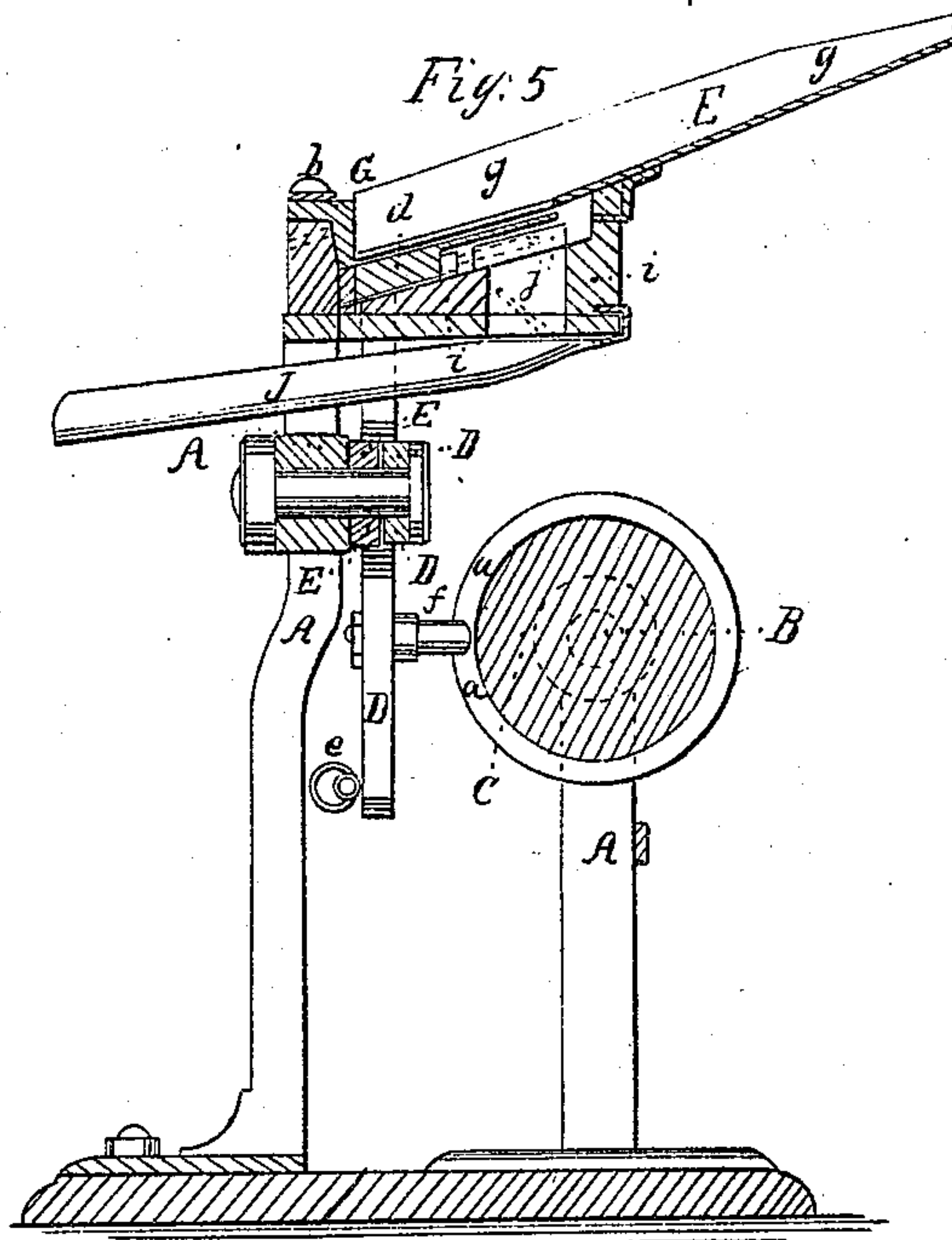
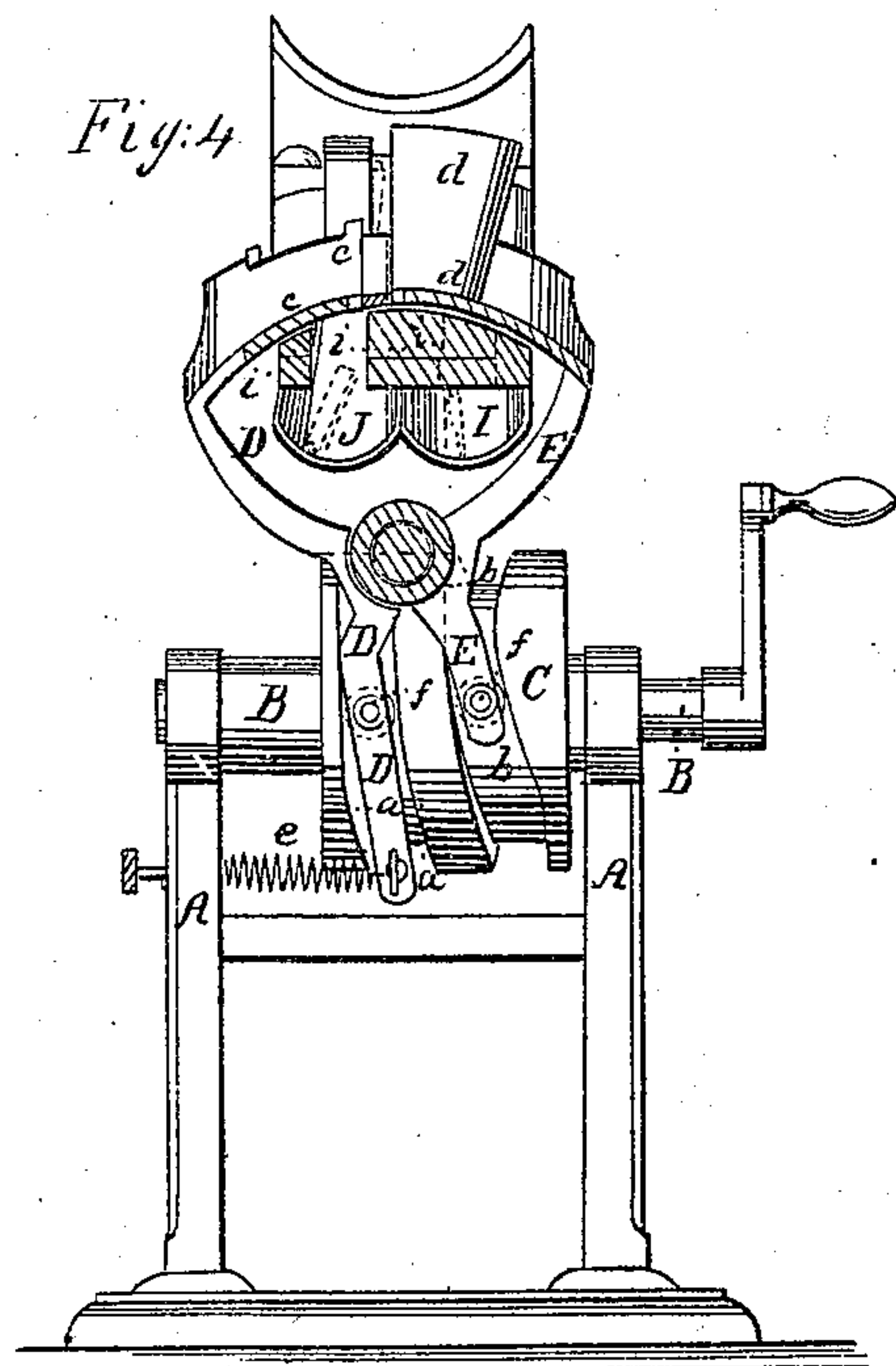
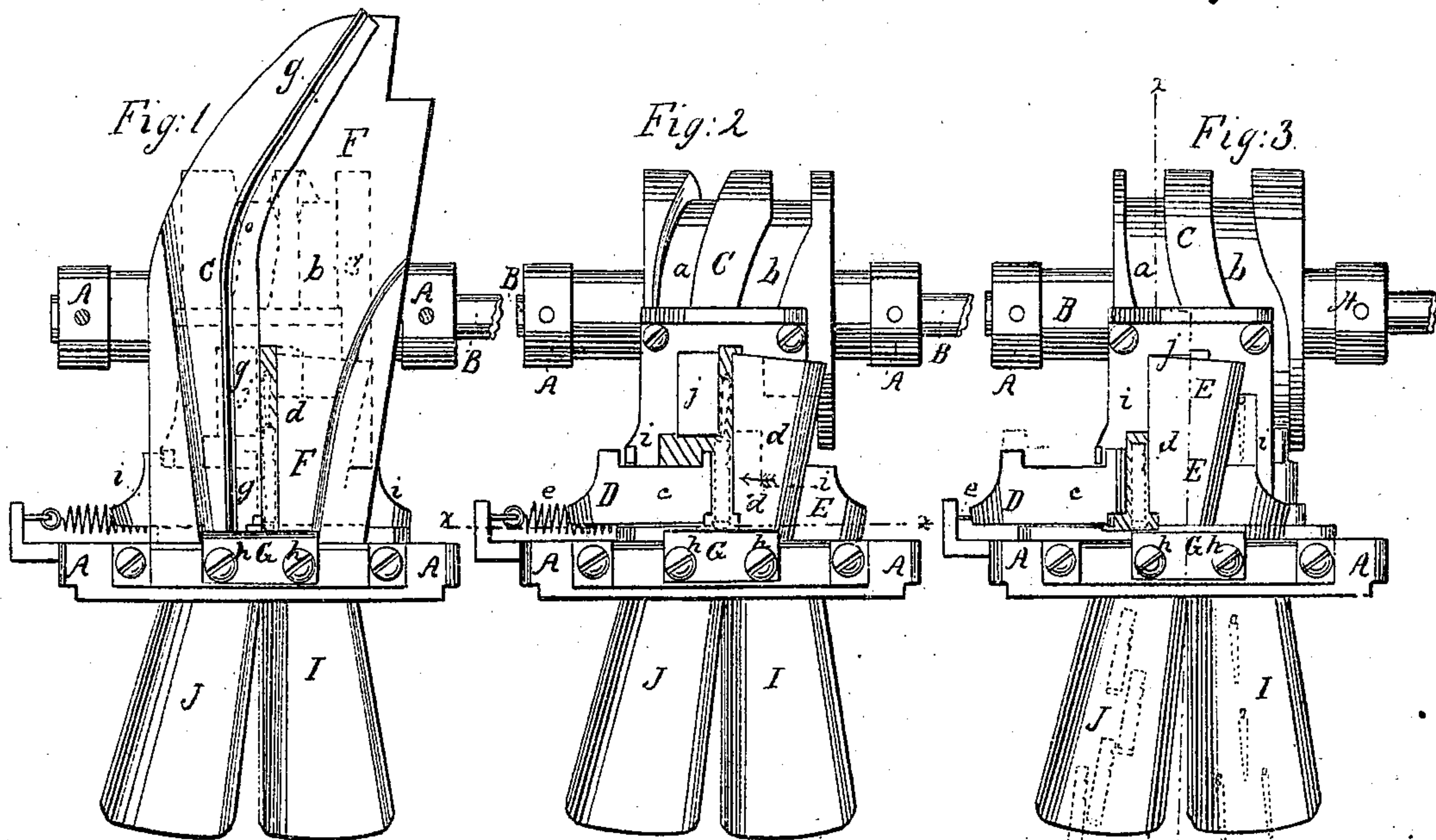


C. Baer.
Type-Breaker.

N^o 86968.

Patented Feb. 16. 1869.



Witnesses.
Alex F. Roberts.
J M Winton

Inventor
C. Baer
per *Mumfelle*
attorneys

United States Patent Office.

CHARLES BAER, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND
PHILIP HEINRICHS, OF SAME PLACE.

Letters Patent No. 86,968, dated February 16, 1869.

IMPROVEMENT IN TYPE-BREAKERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, CHARLES BAER, of the city, county, and State of New York, have invented a new and improved Type-Breaker; 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 plan or top view of my improved type-breaker.

Figures 2 and 3 are similar views of the same, showing the parts in different positions.

Figure 4 is a vertical transverse section of the same, the plane of section being indicated by the line *x x*, fig. 2.

Figure 5 is a longitudinal vertical section of the same, the plane of section being indicated by the line *y y*, fig. 3.

Similar letters of reference indicate corresponding parts.

This invention relates to a new machine for breaking the jets off the bodies of types, and is intended as an attachment to a type-casting machine.

The invention consists in such an arrangement and combination of two movable clamping-tools, with a stationary abutment and feed and discharge-channels, that the type, as it is discharged from the casting-machine, is fed face forward between the clamping-tool, the jet projecting from the same, and the tools are then moved to one side, so that the jet may strike against a stationary abutment, whereby it will be detached from the type, when it will drop into a channel, which conveys it to a suitable receptacle.

The type is carried further by the clamps, and is then discharged into a channel, which carries it to a separate receptacle.

The apparatus can be fitted for types of various length.

A, in the drawing, represents the frame of my improved type-breaking machine. The same is made of wood, metal, or other suitable material, of suitable form and dimensions.

B represents a horizontal axle, having its bearings in the frame A, and receiving rotary motion from suitable mechanism.

On the shaft B is mounted a cam, C, having two cam-grooves, *a* and *b*, as shown clearly in figs. 2, 3, and 4.

To the frame A, in front of the shaft B, are pivoted two levers, D and E, which are at their upper ends provided with plates, *c d*, respectively, which act as jaws for clamping the type.

On each lever D E is a pin, *f*, which fits into one of the grooves of the cam C, so that thus the lever D *c* is connected with the groove *a*, while the lever E *d* is connected with the groove *b*, as is clearly shown in fig. 4.

A spring, *e*, on a lower arm of the lever D, has a constant tendency to force the plate *c* against the plate *d*.

F is a metal or other inclined trough, into which the types are discharged from the type-casting machine. This trough is fastened to the frame A, above the jaws *c d*, and inclines downward, towards the front of the machine, as well as towards that side to which the type is ejected from the casting-machine.

The type falls, on this lower side, against a ledge, *g*, which is arranged on the trough, as shown, said ledge guiding the type downward towards a slot in the lower part of the trough.

By the shape of the trough and the arrangement of the ledge *g*, the type is carried, face down, towards the front of the machine, and will never move with the jet in front.

In the front of the machine, the face of the type strikes against a wooden or other block, G, which can be adjusted by means of a set-screw, *h*, or otherwise, so as to arrest the type sooner or later.

Through a slot in the plate F, the type falls down upon a stationary plate, *i*, that projects from the frame A, and between the two jaws *c d*, which are then in position, shown in fig. 1, ready to receive the type.

The block G should be so adjusted that the jet of the type will project from the jaws *c d*, and will not be held in the same, as indicated in fig. 5, while the type is firmly held between the jaws.

The block G, therefore, is adjustable, to adapt the machine to longer and shorter type.

When the type is thus clamped between the jaws, the latter will, by the action of the revolving cam, be both moved to one side, so as to carry the type along with them.

During this motion, the type-jet will strike against a stationary abutment, *j*, which is fitted upon the plate *i*, and by which the jet is broken off the type-body, as the latter is carried in the direction of the arrow in fig. 2.

The jet, thus separated from the type-body, falls into a trough, I, prepared for its reception, (see fig. 4,) while the type is carried still further by the jaws, until it is above a slot in the plate *i*, and over a trough, J, as in fig. 3. Then the jaws are separated, by the shape of the cam-grooves *a b*, and release the type, which falls into the trough J, as indicated in fig. 3. The jaws are then, by the action of the cam, brought back to their original position, which is indicated in fig. 1, ready to receive another type.

The spring *e* serves to hold the jaws together, so that they may well hold the type.

The jaw *d* is so long that it closes the whole slot in the trough F, as long as the jaws are moving to break and discharge the type.

Having thus described my invention,

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

1. A type-breaking machine, consisting of the trough F, movable jaws *c d*, block G, and abutment *j*, all made and operating substantially as herein shown and described.

2. The above in combination with the troughs I and J, arranged as described, for the purpose of separating the broken-off jets from the types, as specified.

3. The jaws *c d*, when attached to pivoted levers D

E, and when operated, by means of grooves *a b*, in the cam C, and by a spring *f*, all made and operating substantially as herein shown and described.

CHARLES BAER.

Witnesses:

WM. F. McNAMARA,
ALEX. F. ROBERTS.