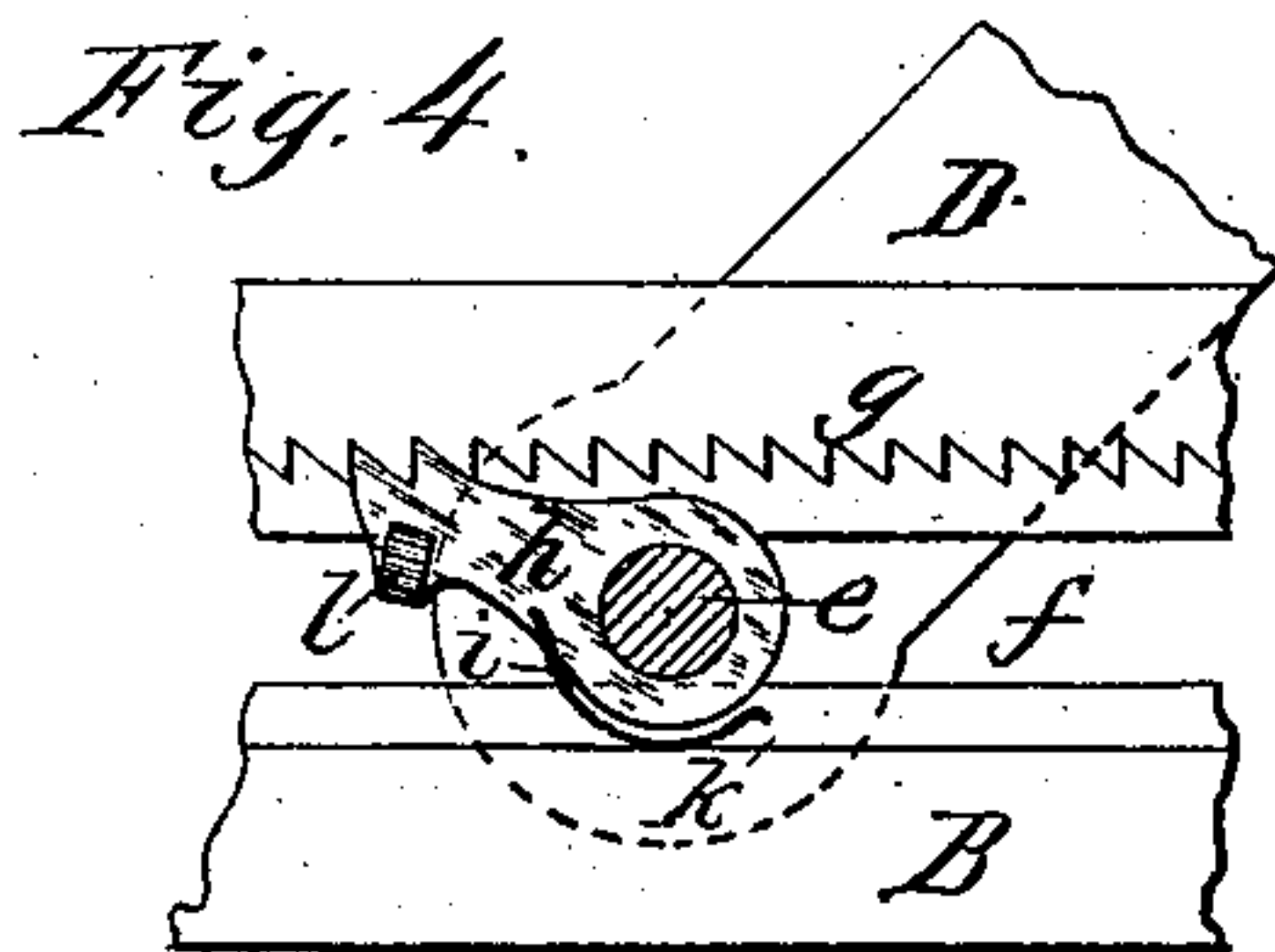
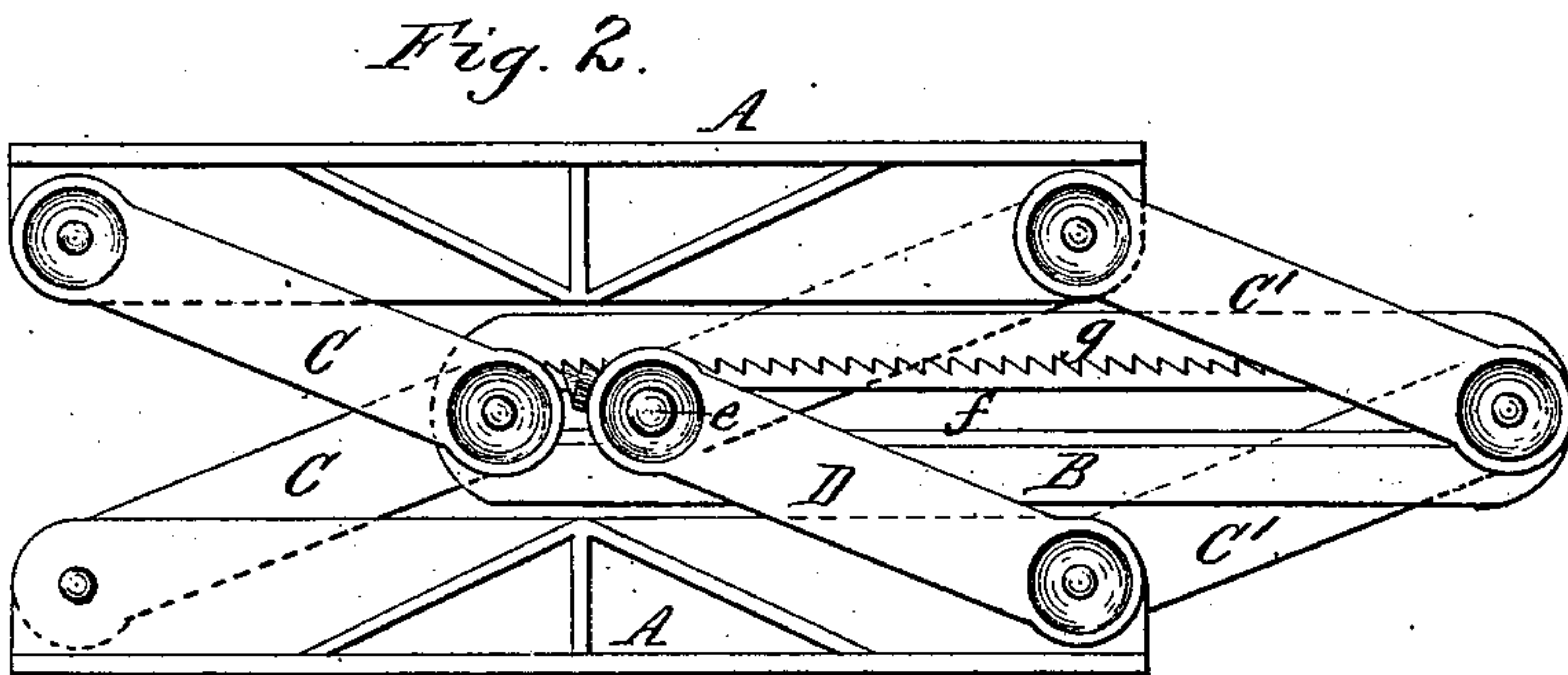
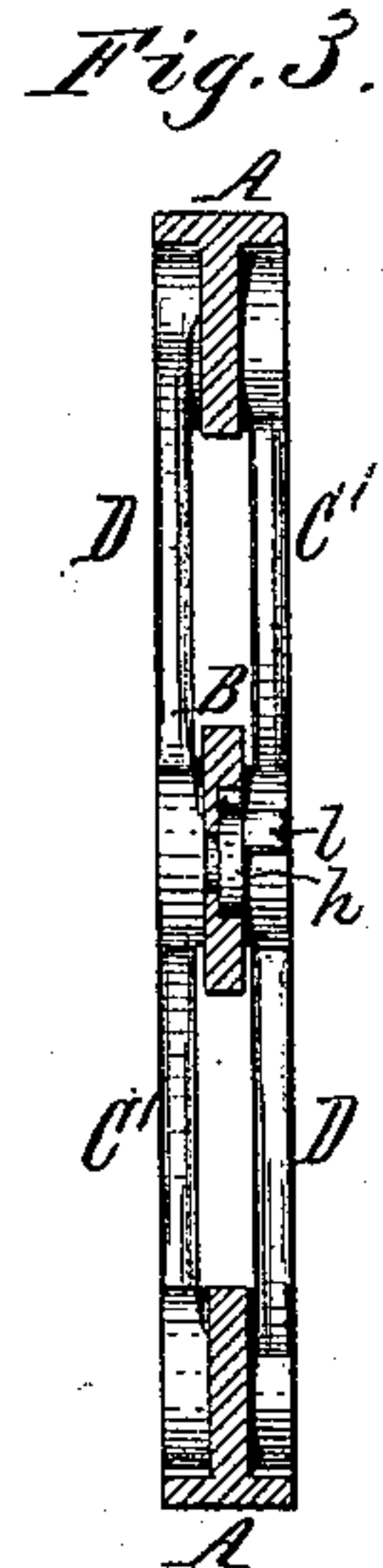
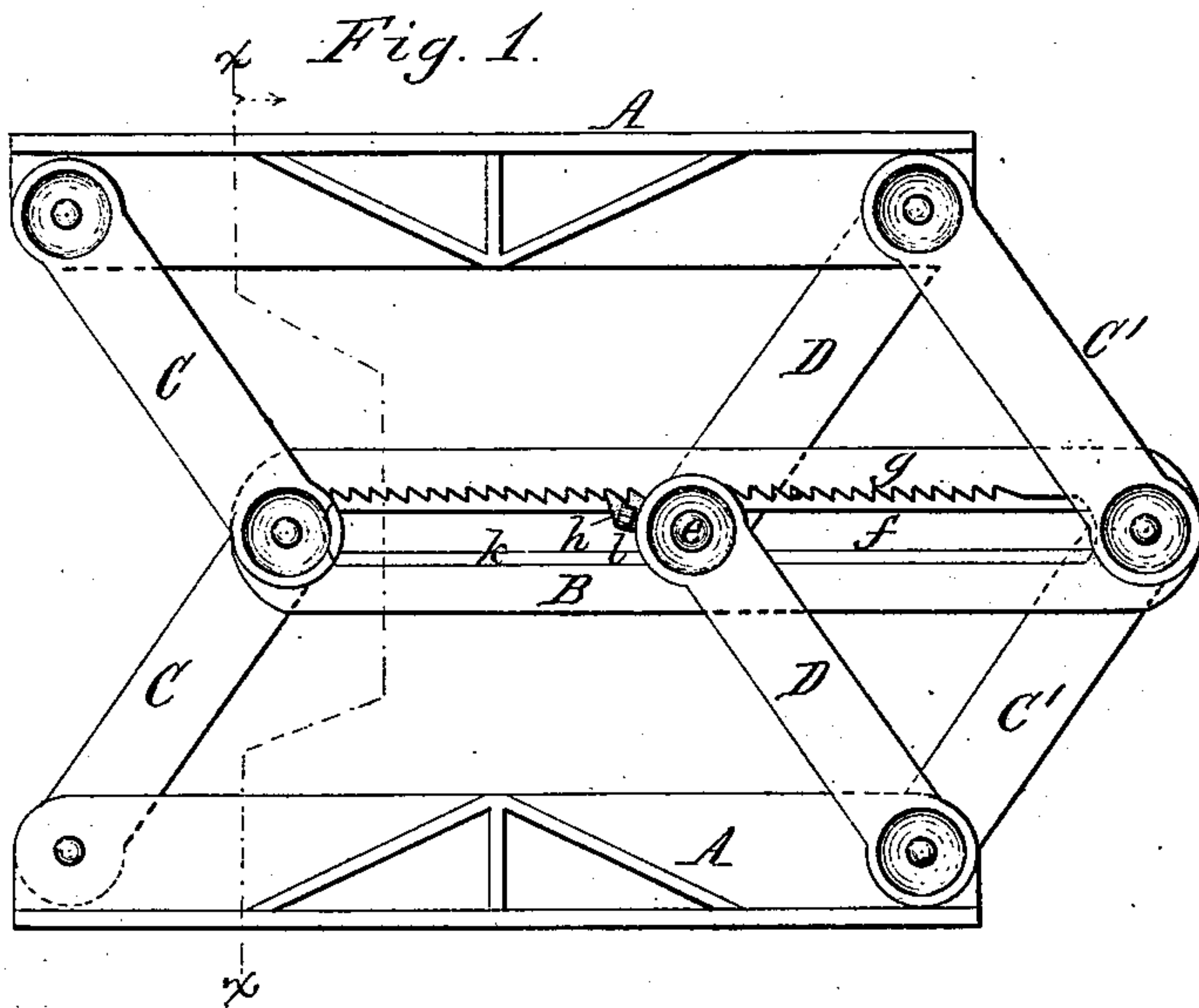


H. A. HEMPEL.
Printer's Locking-Up Device.

No. 227,004.

Patented April 27, 1880.



Chas. J. Ruckheit, att.
Edw. J. Brady } *Witnesses.*

H. A. Hempel, Inventor.
By Wilhelm & Pinner,
Attorneys.

UNITED STATES PATENT OFFICE.

HENRY A. HEMPEL, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO JOSEPH A. DINGENS, OF SAME PLACE.

PRINTER'S LOCKING-UP DEVICE.

SPECIFICATION forming part of Letters Patent No. 227,004, dated April 27, 1880.

Application filed February 7, 1880.

To all whom it may concern:

Be it known that I, HENRY A. HEMPEL, of the city of Buffalo, in the county of Erie, in the State of New York, have invented a new and useful Improvement in Printers' Locking-Up Devices, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to printers' locking-up devices for securing forms in proper position on the beds of printing-presses, and may be adapted to the locking up of type in chases.

The object of my invention is the construction of a simple adjustable locking-up device which can be conveniently handled and which is readily adjusted to any desired width.

My invention consists of an adjustable locking-up device composed of two parallel end bars connected with a central bar by suitable links, and provided with a locking mechanism whereby the parallel end bars are secured at any desired distance from each other; also, of the peculiar construction of the locking mechanism, as will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a plan view of my improved adjustable locking-up device in an extended position. Fig. 2 is a similar view of the locking-up device contracted. Fig. 3 is a section in line *xx*, Fig. 1. Fig. 4 is a detached view, on an enlarged scale, of the locking mechanism.

Like letters of reference refer to like parts in the several figures.

A A represent two straight parallel end bars made of the proper width and length in accordance with the size of the chase or press in which the locking-up device is designed to be used. B is the central bar, arranged parallel with the end bars, A, and having its ends connected with the ends of the end bars, A, by two pairs of pivoted links, C C'. The links C' are arranged so as to form a salient angle, and the links C are arranged parallel therewith, forming a re-entering angle.

D are two links pivoted to the ends of the end bars, A A, at the points where the links C' are pivoted thereto, and having their inner ends pivoted together at *e*, the links D being of the same length as the links C', and the

upper link D arranged parallel with the lower link C' and the lower link D parallel with the upper link C', so that the four links C' D form an adjustable parallelogram.

The pivot *e*, connecting the inner ends of the links D, passes loosely through a longitudinal slot, *f*, formed in the central bar, B, so that it freely slides therein when the outer bars, A A, are opened or closed.

g is a ratchet bar or rack formed on the bar B, on one side of the slot *f*, and *h* is a pawl hung on the pivot *e*, and held in engagement with the teeth *g* by a spring, *i*, bearing against a plain shoulder, *k*, formed on the opposite side of the slot *f*.

The spring *i* is preferably made comparatively short, as shown, so that the spring will press the pawl *h* against the teeth *g* only when the free end of the pawl is placed between the central line of the slot *f* and the teeth *g*, while when the pawl *h* is swung past the central line of the slot the free end of the pawl will be held against the plain shoulder *k* of the bar B. The pawl *h* is provided with a projecting knob, *l*, for taking hold of it.

When the locking-up device is contracted or reduced to its smallest compass, the bars A A and B lie in close contact, as shown in Fig. 2. Upon taking hold of the outer bars, A A, the latter can be easily separated, when the pivot *e* of the links D slides through the slot *f*, and the pawl *h* rides over the teeth *g* until the separating motion of the bars A is stopped, when the pawl *h* is thrown in engagement with the teeth *g* by the spring *i*, thereby preventing the bars A from closing under pressure. In this manner the bars A are readily adjusted and secured at any desired distance from each other to correspond with the space desired to be filled in the chase or press-bed, the operation of adjusting and securing the bars being effected very rapidly and with very little effort on the part of the operator. Upon releasing the pawl *h* the bars A A can be closed by a slight pressure of the hand.

My improved locking-up device will sustain any pressure which can be brought to bear upon the same in the chase or press-bed, and it affords a ready and convenient means for filling up spaces which are now frequently

filled very inconveniently with a number of pieces of wooden furniture.

I claim as my invention—

1. The combination, with the parallel bars
5 A A, of the central bar, B, connected there-
with by links C C' and D and pivot *e*, and pro-
vided with a suitable fastening device, sub-
stantially as set forth.
2. The combination, with the parallel bars

A A, of the central bar, B, provided with slot 10
f, ratchet-teeth *g*, links C C', connecting the
bars A A B, pivot *e*, and the links D, provided
with a spring-pawl, *h*, substantially as set forth.

HENRY A. HEMPEL.

Witnesses:

JNO. J. BONNER,

J. A. DINGENS.