

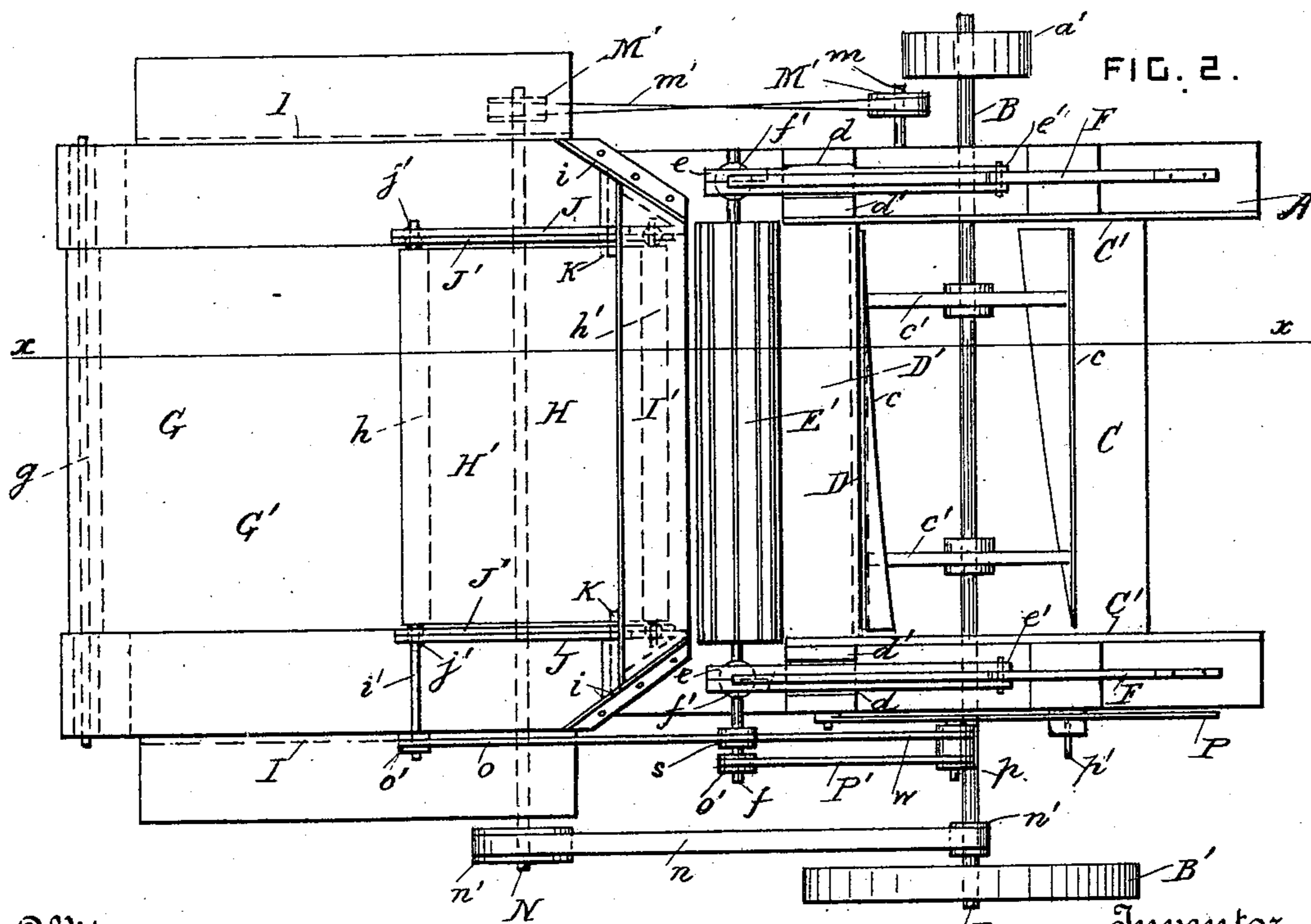
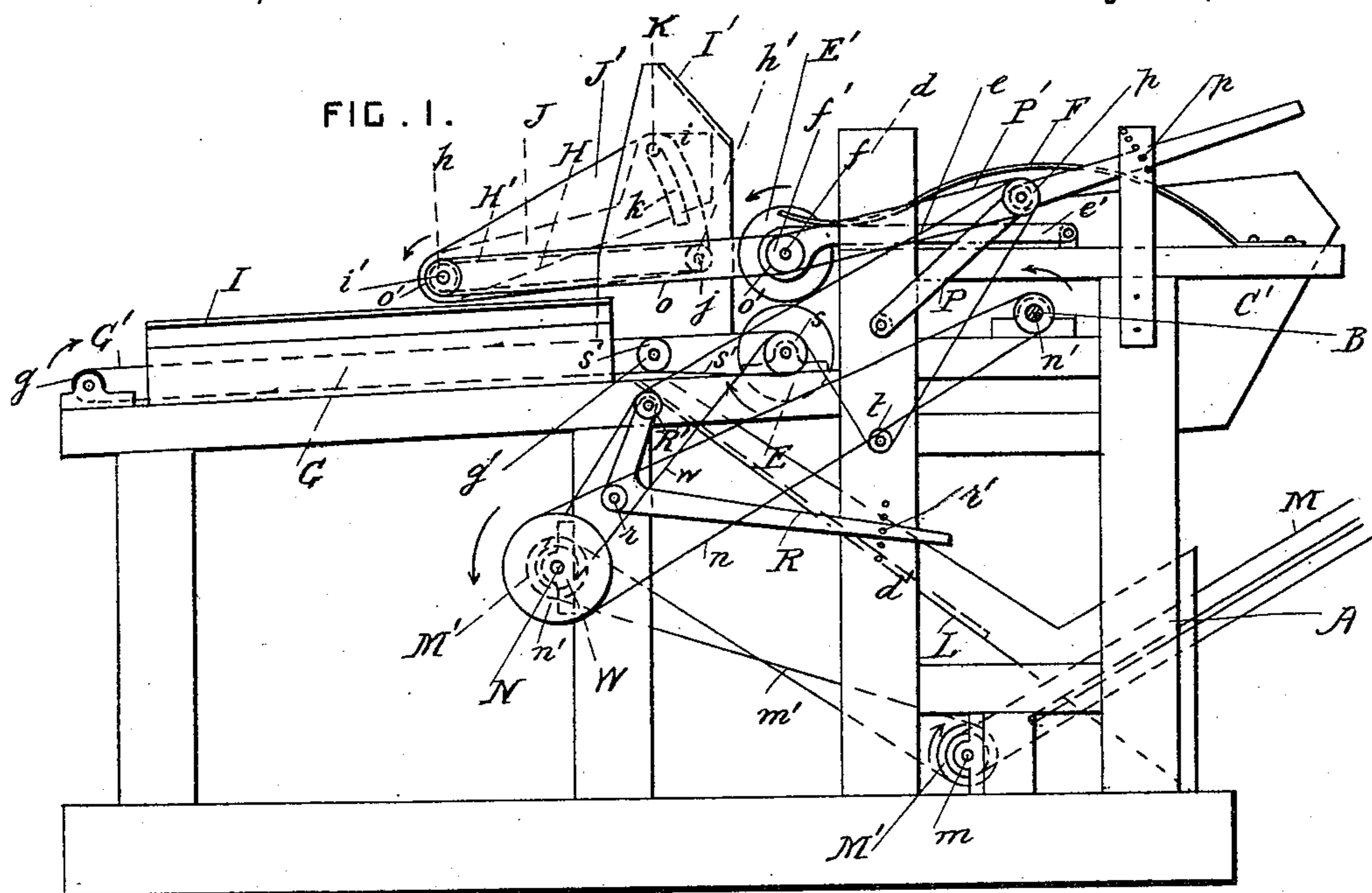
(No Model.)

2 Sheets—Sheet 1.


P. RUPP.
FEED CUTTER.

No. 582,487.

Patented May 11, 1897.



Witnesses
J. Spring Pool
J. O. Johnson

 B Inventor
Peter Rupp
By Attorney *Herbert W. Jenner*

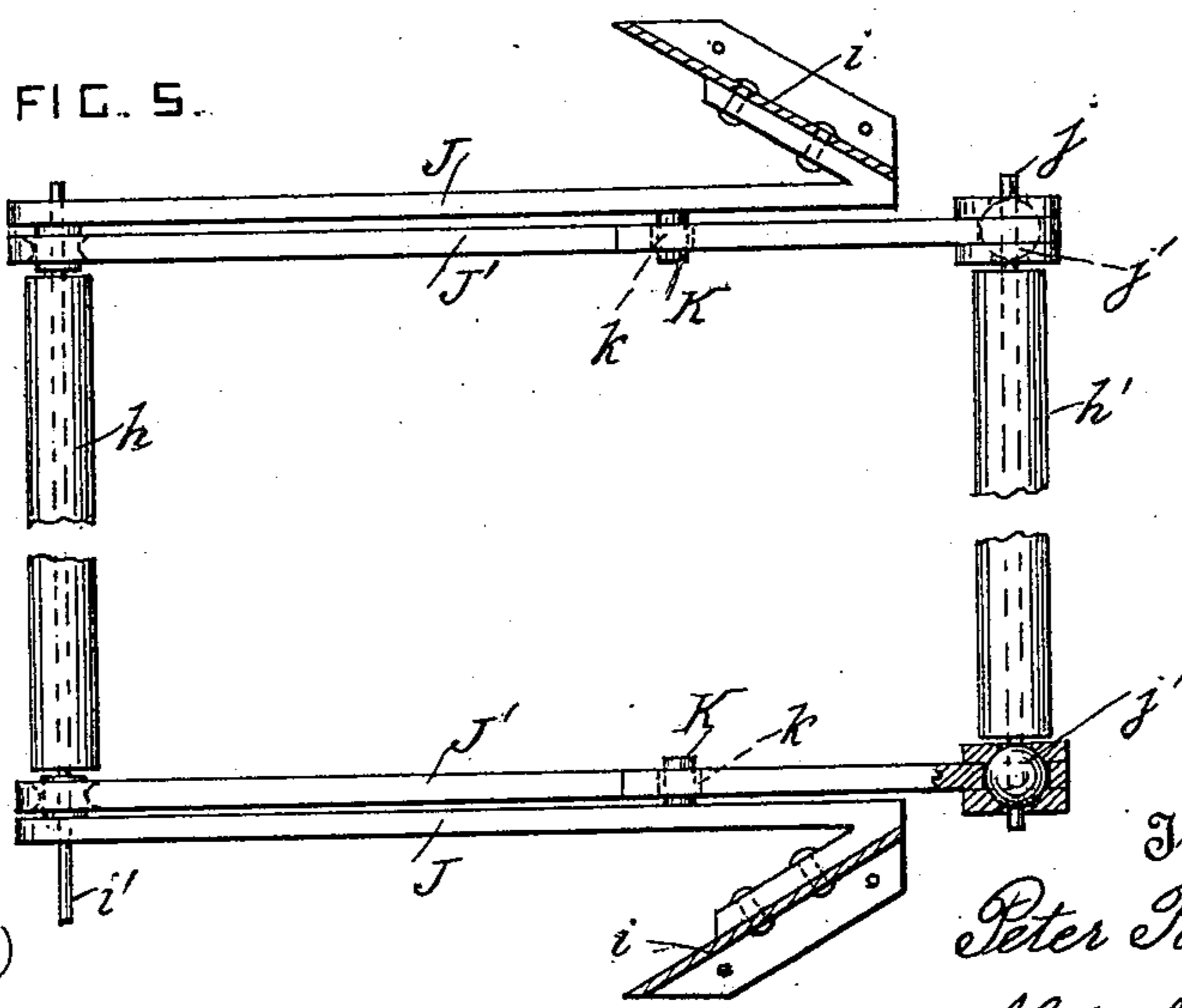
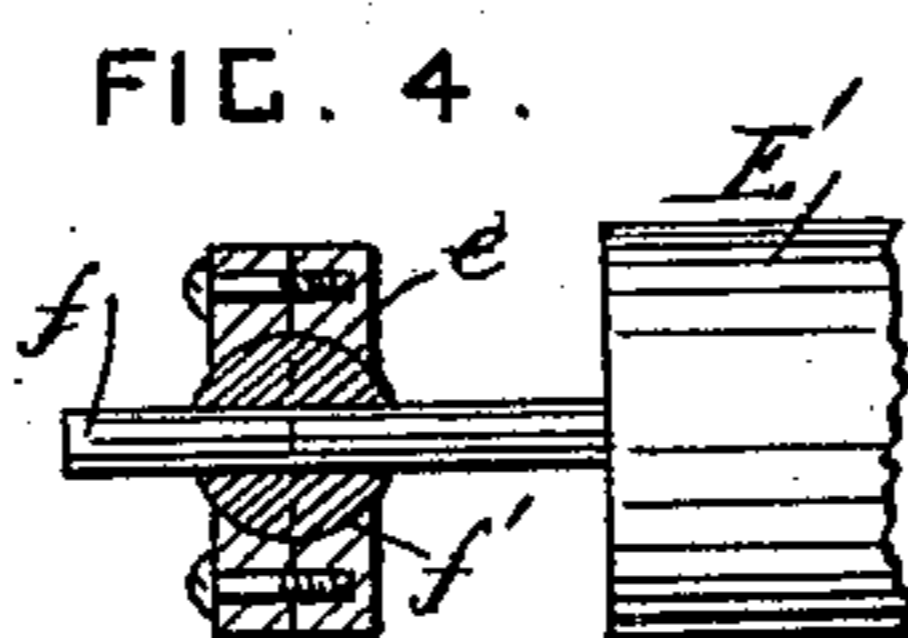
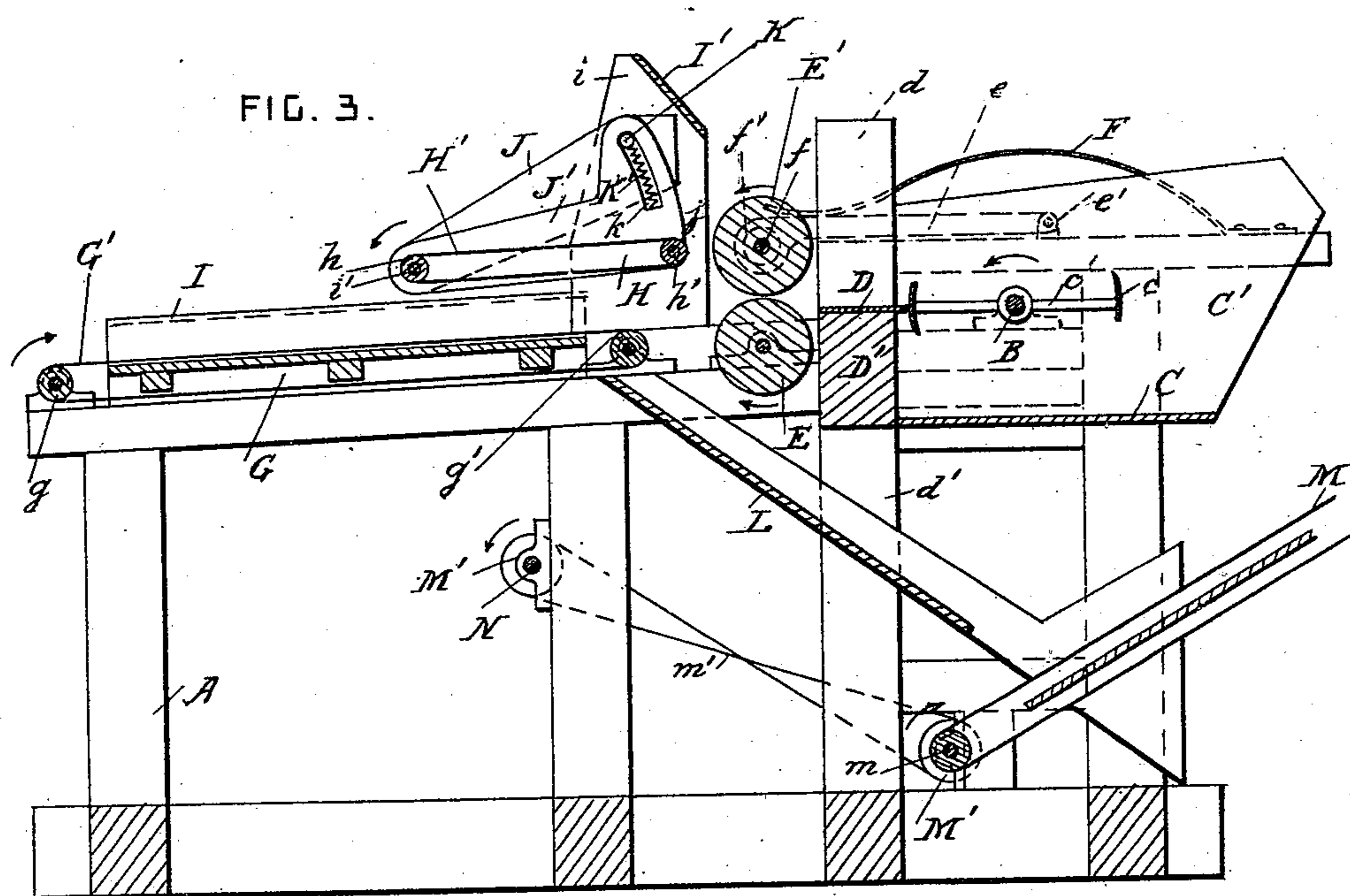
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By Attorney Herbert W. Jenner.

UNITED STATES PATENT OFFICE.

PETER RUPP, OF WHITE HOUSE, OHIO.

FEED-CUTTER.

SPECIFICATION forming part of Letters Patent No. 582,487, dated May 11, 1897.

Application filed May 20, 1896. Renewed March 19, 1897. Serial No. 628,362. (No model.)

To all whom it may concern:

Be it known that I, PETER RUPP, a citizen of the United States, residing at White House, in the county of Lucas and State of Ohio, have
5 invented certain new and useful Improvements in Feed-Cutters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as
10 it appertains to make and use the same.

This invention relates to feed-cutters; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

15 In the drawings, Figure 1 is a side view of the machine with the fly-wheel removed. Fig. 2 is a plan view of the same. Fig. 3 is a vertical section taken on the line xx in Fig. 2. Fig. 4 is a detail section through one of the
20 spherical bearings. Fig. 5 is a detail plan view of the upper conveyer, drawn to a larger scale.

A is the frame of the machine.

25 B is the driving-shaft, journaled in the upper part of the frame toward the rear and provided with a driving-pulley a' .

B' is the fly-wheel, secured on the other end of the shaft B from the pulley a' .

30 C is the bottom of the cutting-box, and C' are its sides. Cutters c are carried by arms c' , secured on the shaft B inside the cutting-box. These cutters are of any approved form and construction and are preferably arranged spirally, so that they may produce a shearing
35 cut.

D is the stationary knife or cutting-plate, which is secured in a horizontal position on top of the block D', at the front of the cutting-box.

40 E and E' are two feed-rollers arranged in front of the cutting-plate. The lower roller E is journaled in bearings in the frame. The upper roller E' is journaled in bearings f' , carried by the free ends of two levers e , having
45 their rear ends e' pivoted to the frame. The front end portions of the levers e slide vertically in guide-grooves d in the uprights d' , which form part of the frame, or in any other equivalent guides which will permit the upper
50 roller to move in a vertical direction.

F are springs secured to the frame and bearing downward on the levers e . The bear-

ings f' , which support the shaft f of the upper roller, are preferably spherical, as shown in Fig. 4, and are carried in concave sockets, so
55 that one end of the roller can rise before the other. The rollers may be plain, but they are preferably provided with projections or grooves to prevent them slipping on the fodder.
60

G is the lower conveyer, supported at the front part of the machine. This conveyer G comprises an endless band G' , of flexible material, which passes over the rollers g and g' ,
65 journaled in the frame A.

H is the upper conveyer, supported above the conveyer G. This conveyer H comprises an endless band H' , of flexible material, which passes over the rollers h and h' . These conveyers may be of any other equivalent construction, and may be provided with cross-slats on their surfaces or with any other approved means for preventing the fodder from
70 slipping.

I are guard-plates secured to the frame A
75 on each side of the lower conveyer to prevent the fodder from falling over its side edges.

I' is a converging throat formed of a top plate and two side plates i , secured to the frame in front of the rollers E and E'.
80

J are arms secured to the side plates i and affording bearings for the shaft i' of the front roller h .

J' are arms having their front ends pivoted to the arms J concentric with the shaft i' .
85 The shaft j of the roller h' is journaled in bearings j' , carried by the rear ends of the arms J'. The bearings of the arms J' for the shaft j are preferably spherical, like the bearing shown in Fig. 4, so that one end of the
90 roller h' can rise before the other end.

K are pins projecting from the arms J and engaging with slots k in the arms J'.

K' are springs in the slots k to prevent the roller h' from rising too easily.
95

The conveyer, the feed-rollers, and the driving-shaft are revolved positively in the directions of the arrows by any approved driving mechanism. The fodder to be cut up is placed on the lower conveyer, which is longer than
100 the upper conveyer, and the fodder is drawn in and is partially consolidated between the two conveyers. In this condition the fodder is fed between the two feed-rollers, which com-

plete its consolidation and feed it onto the cutting-plate D, and the fodder is cut up by the revolving knives at the rear edge of this plate. The cut fodder falls from the bottom
5 of the cutting-box onto the stacker M, and anything dropping from the feed-rolls falls onto the chute L, which discharges it rearwardly onto the elevator or stacker M.

The stacker M is of any approved construction and is preferably an endless conveyer-
10 band driven from the shaft *m* at its lower end.

The various shafts of this machine are shown driven by belts passing over pulleys, but drive-chains or other similar devices may
15 be used, and drive-chains preferably are used, same being the mechanical equivalents of belts and being shown and described as belts to simplify the drawings.

N is a counter-shaft journaled in the frame
20 under the lower conveyer. The stacker-shaft *m* is driven by the pulleys M' on the shafts N and *m* and the crossed belt *m'*. The counter-shaft is driven by the belt *n*, which passes over the pulleys *n'* on the shafts N and B.
25 The front roller *h* of the conveyer H is driven from the shaft of the upper feed-roller E' by the belt *o* and the pulleys *o'*.

P is a lever pivoted to one side of the frame A, and *p* is a pulley journaled on a pin projecting from the said lever. The free end of
30 the lever engages with notches on the frame or is connected to it by a pin *p'* or any other equivalent means which will permit it to be adjusted.

P' is a driving-belt which passes around the pulley *p* and the pulley *o'* on the end of the
35 shaft of the upper feed-roller.

R is a lever pivoted on the pin *r*, projecting from the frame, and R' is a pulley carried by
40 the said lever. The free end of the lever R

is adjustably connected to the frame by the pin *r'* or any equivalent fastening device.

Pulleys *s* are secured on the ends of the shafts of the rollers E and *g'*, so that the lower conveyer is driven from the lower feed-roller
45 by means of the belt *s'*, passing around the pulleys *s*.

A guide-pulley *t* is journaled on a pin projecting from the frame. A driving-pulley W is secured on the counter-shaft N behind the
50 pulley *n'* on the end of it. Motion is imparted to the lower feed-roller and the pulley *p* by the belt *w*, which passes over the pulleys W, *s*, *t*, *p*, and R', as shown in the drawings, and in the order named.
55

The machine is provided with boards covering the cutting-box and various other accessories, which are not shown and described, as they are of ordinary approved construction.
60

What I claim is—

In a feed-cutter, the combination, with a lower conveyer; of supports J for an upper conveyer provided with pins K, the upper-conveyer front roller *h* journaled in the said
65 supports, arms J' pivoted to the said supports concentric with the roller *h* and provided with spherical bearings *j'* carried in concave sockets, and slots *k* engaging with the pins K; the upper-conveyer rear roller *h'* journaled in the
70 bearings *j'*, springs arranged in the said slots below the pins K, and an endless conveyer-band passing over the rollers *h* and *h'*, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

PETER RUPP.

Witnesses:

ROBERT WHEELER,
GEORGE WECKERLY.