

No. 671,362.

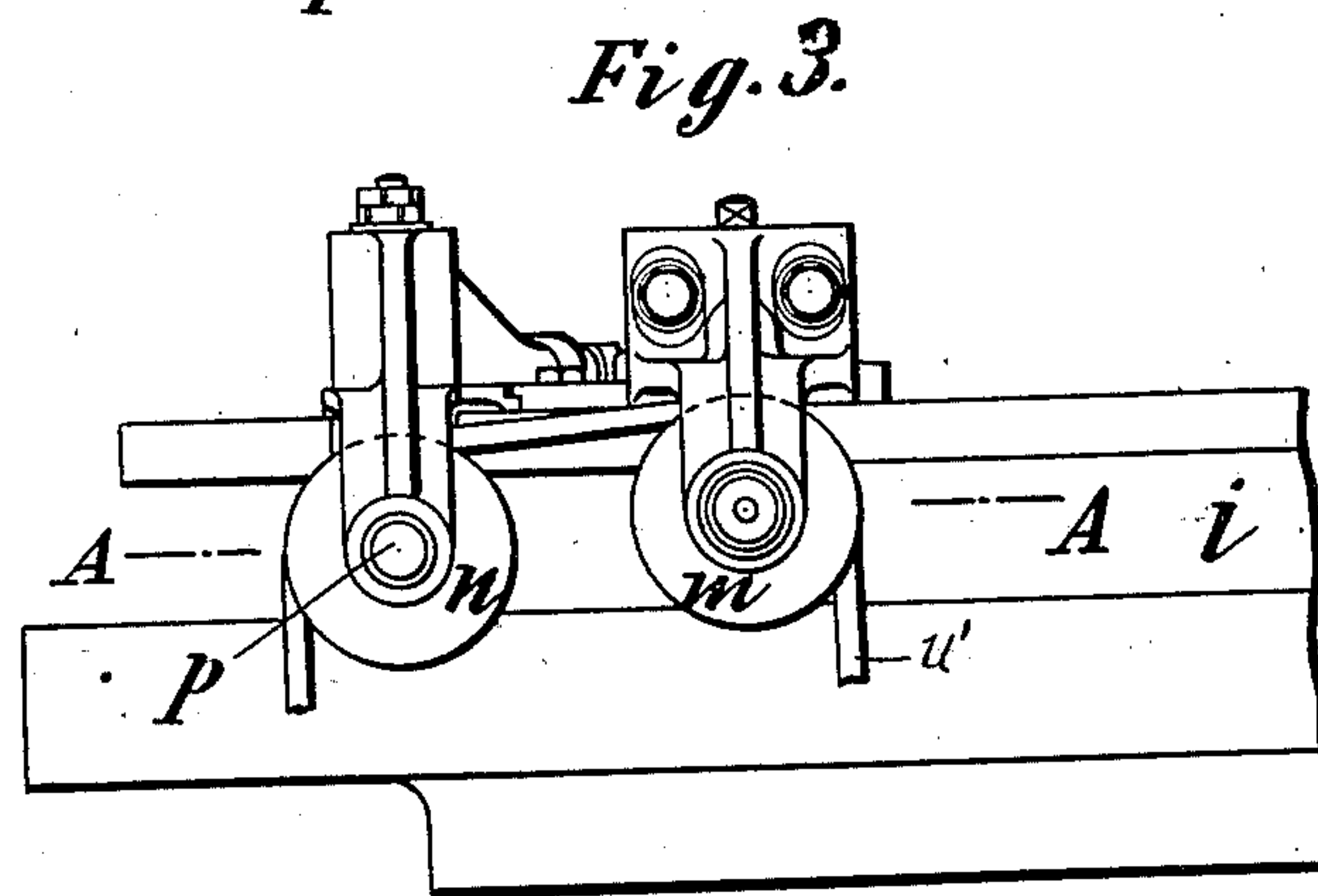
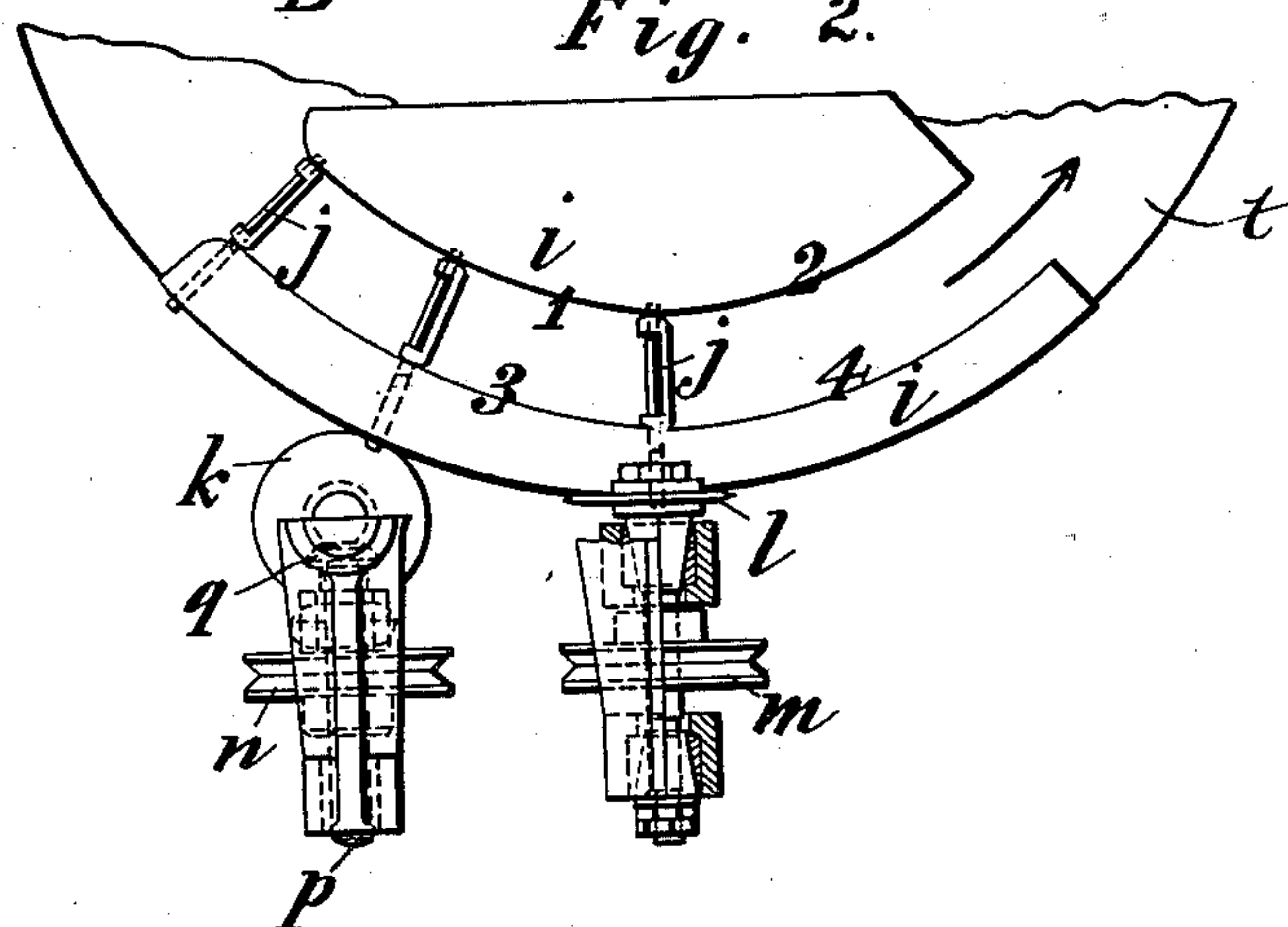
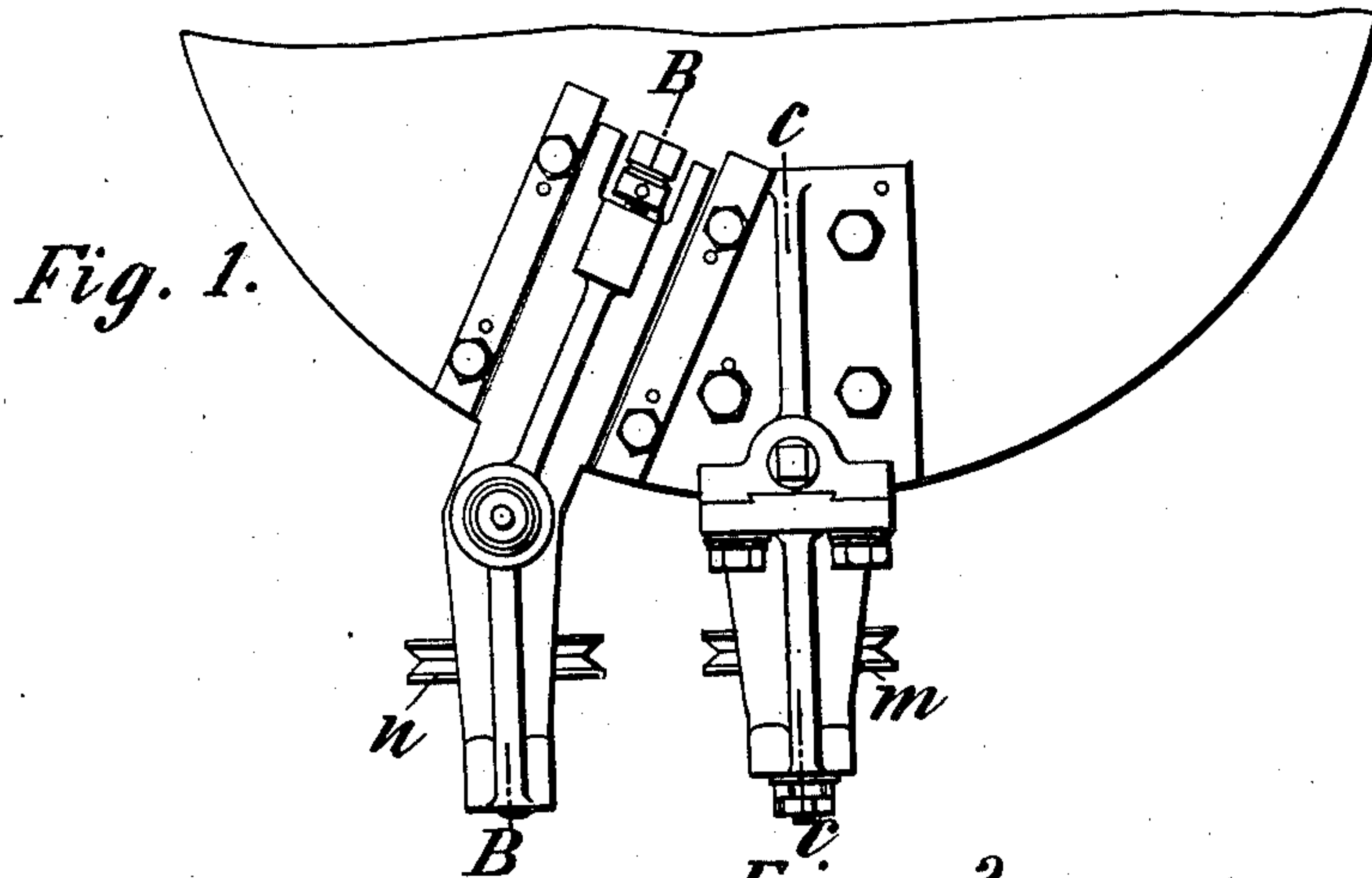
Patented Apr. 2, 1901.

F. WICKS.  
ROTARY TYPE CASTING APPARATUS.

(Application filed Sept. 14, 1899.)

2 Sheets—Sheet 1.

(No Model.)



Witnesses

*H. B. Kiefer*

*Geo. L. Sullivan*

Inventor

*Frederick Wicks*

by *James L. Norris*  
att'y

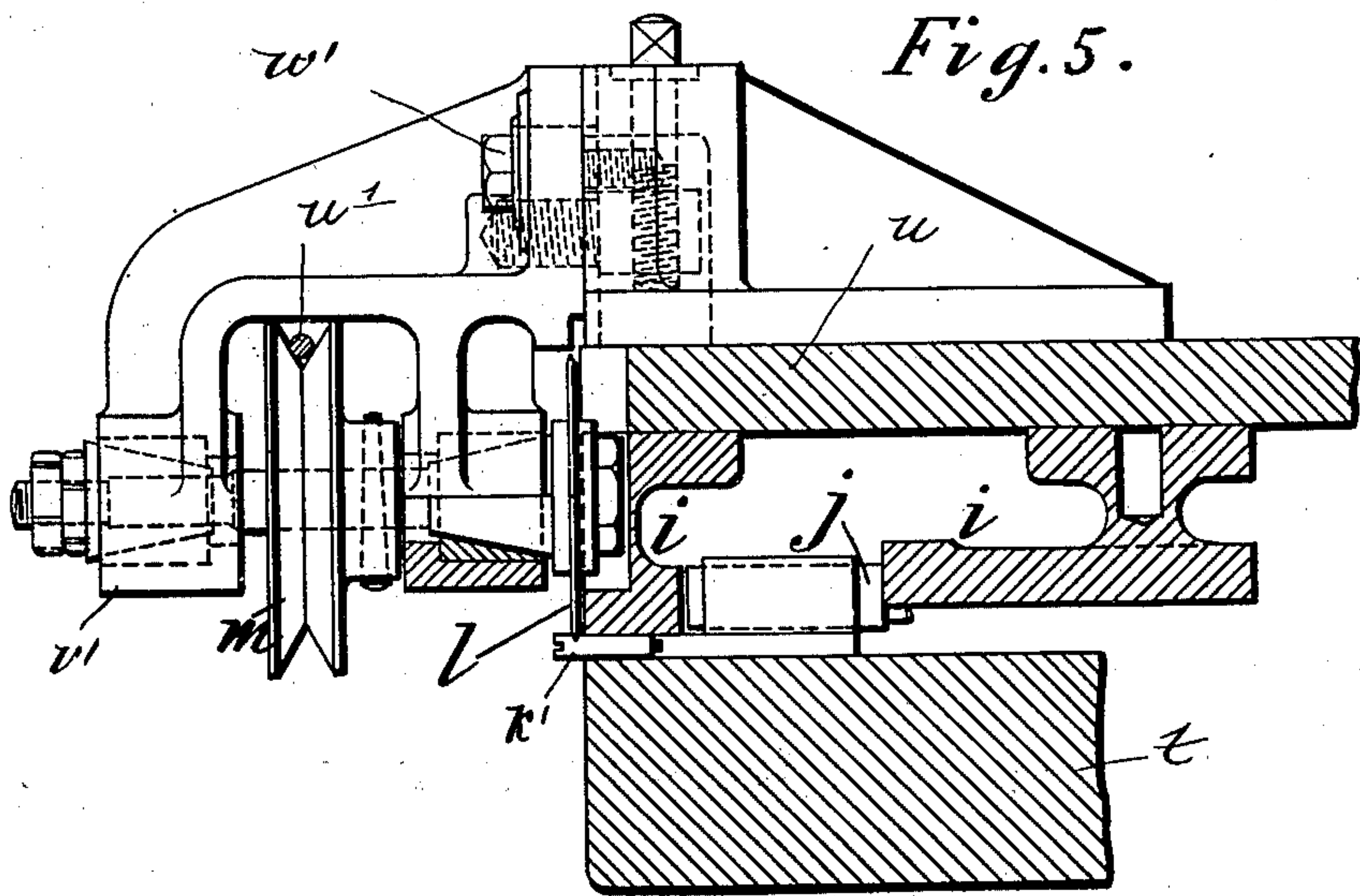
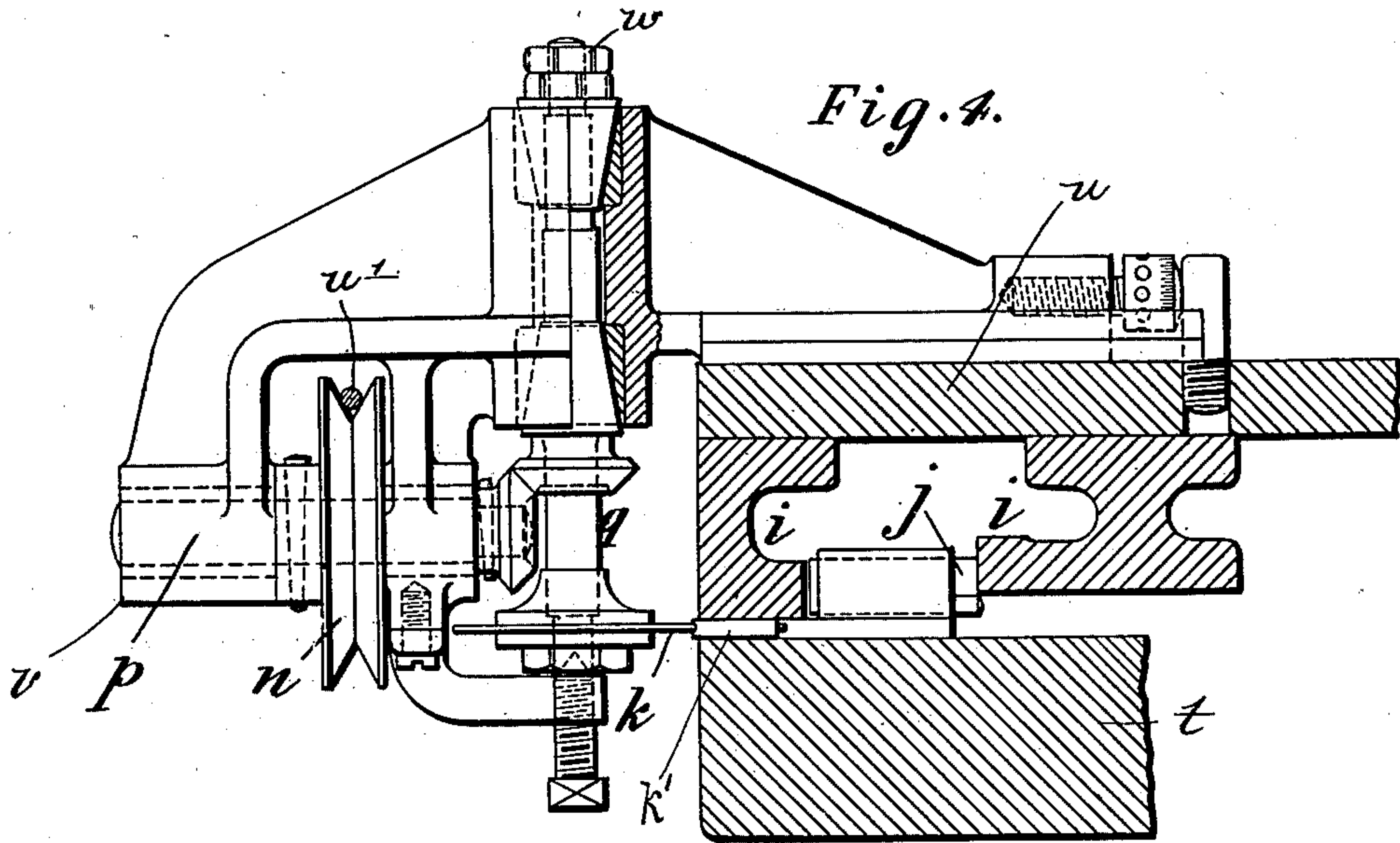
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# UNITED STATES PATENT OFFICE.

FREDERICK WICKS, OF ESHER, ENGLAND.

## ROTARY TYPE-CASTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 671,362, dated April 2, 1901.

Application filed September 14, 1899. Serial No. 730,476. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK WICKS, a citizen of England, residing at Halfway Lodge, Esher, in the county of Surrey, England, have  
5 invented certain new and useful Improvements in Rotary Type-Casting Apparatus, (for which I have applied for a patent in Great Britain, dated February 23, 1899, No. 4,052,) of which the following is a specification.  
10 In my United States Patent No. 565,820, dated August 11, 1896, I have described rotary type-casting apparatus wherein a circular table having radial grooves forming type-molds rotates continuously, while matrix-plungers are caused by cams to slide in the  
15 grooves, each plunger as it approaches a jet-orifice being retracted, so as to leave in front of it a space, into which molten metal is injected to form a type, and these types being  
20 afterward extruded by the advance of the matrix-plungers. In the operation of the apparatus described in the said patent the notch in the tail of each type is formed at the jet-orifice by a stationary rib, along which the  
25 cast type is carried by the revolution of the table, and the nick in the side of each type is likewise formed by a rib projecting down from the stationary cover under which the type-mold passes when the metal is injected.  
30 According to my present invention I form the notch in the tail and the nick in the side of each type by revolving cutters arranged in planes at right angles to each other and driven from the gearing that drives the re-  
35 volving table, as I shall describe, referring to the accompanying drawings.

Figure 1 is a plan; and Fig. 2 is a sectional plan on the line A A of Fig. 3, which is an end view of apparatus according to my present invention for making the tail-notches and the side nicks of the cast types. Figs. 4 and 5 are sections, partly in elevation, on the lines B B and C C of Fig. 1, respectively.

45  $t$  is part of the revolving table or wheel in which are the grooves for the type-molds.

50  $i$  is the cam, which is made in two parts fixed to the stationary upper frame  $u$ , the cam parts acting on the matrix-plungers  $j$ , so as to cause each type as it is carried around by the mold-wheel to protrude a little and holds it so protruded while a revolving cutter  $k$  cuts the notch in the end of the type. The type is then farther protruded by the

cam  $i$  and held in position while the nick in its side is cut by a revolving cutter  $l$ . These  
55 revolving cutters  $k$   $l$  are arranged in planes at right angles to each other, as shown in Fig. 2, and occupy such position as to act successively upon the type to be nicked or  
60 notched. In order to move and hold the types, the cam  $i$  is made with parts 1 and 3 of its curvature eccentric to the axis of the mold-wheel and with parts 2 and 4 concentric there-  
with, these parts facing the type while it is acted on by the cutters. The bearings of the  
65 cutters are denoted by  $v$  and  $v'$ , and they may be adjusted by screws, as  $w$  and  $w'$ , suitably connected with the framework of the machine, to thereby regulate the depth of cut in the  
70 type  $k'$ . The bearings of the cutters are made adjustable, so that the depth of cut can be accurately regulated. The cutters are driven by a band  $u'$ , driven by any ordinary motor. This band passes partly around and drives  
75 two pulleys, the one  $m$  on the axis of the cutter  $l$  and the other,  $n$ , on the axis of a spindle  $p$ , which by bevel-gear  $q$  drives the cutter  $k$ .

Having thus described the nature of this invention and the best means I know of carrying the same into practical effect, I claim—

80 The combination in a rotary type-machine, of a mold-wheel provided with grooves for the type, a stationary cam having surfaces partly eccentric to the axis of the mold-wheel and partly concentric with said axis, to cause  
85 the type to progressively protrude from said wheel as they are carried around thereby, matrix-plungers acted on by said cam to protrude the type and hold them protruded, a rotary cutter to cut a notch in the tail end of  
90 the type, a second rotary cutter to cut a nick in the side of the type, said cutters rotating in planes transverse to each other and both of them being adjustable to regulate the depth of  
95 of cut, mechanism for rotating the mold-wheel; and independent devices controlled by the operation of the mold-wheel for actuating the cutters in unison.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FREDERICK WICKS.

Witnesses:

GERALD L. SMITH,  
C. S. HOPKINS.