

909,122.

G. ROUSSELL.  
CUTTER HEAD.  
APPLICATION FILED NOV. 18, 1908.

Patented Jan. 5, 1909.

Fig. 1.

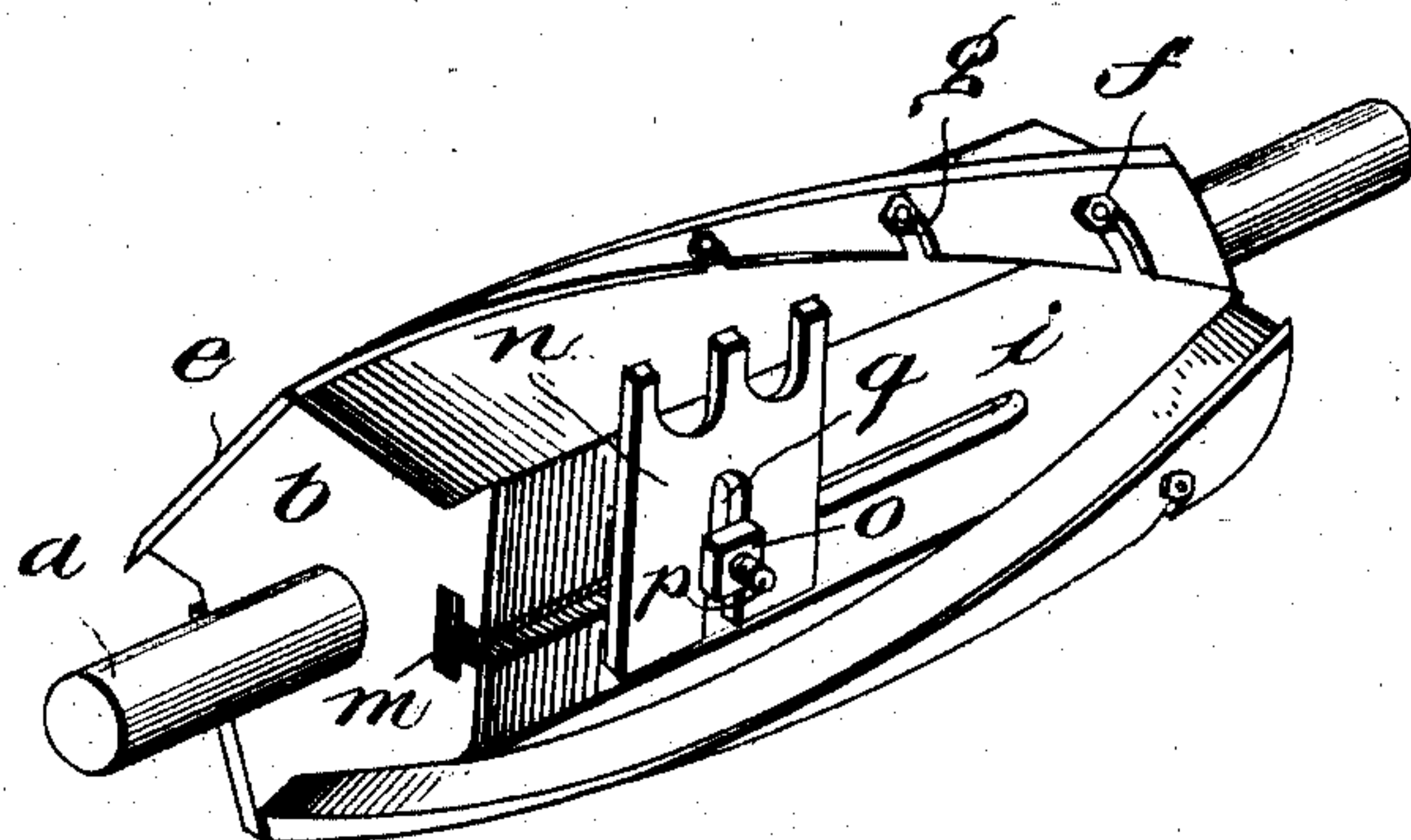


Fig. 2.

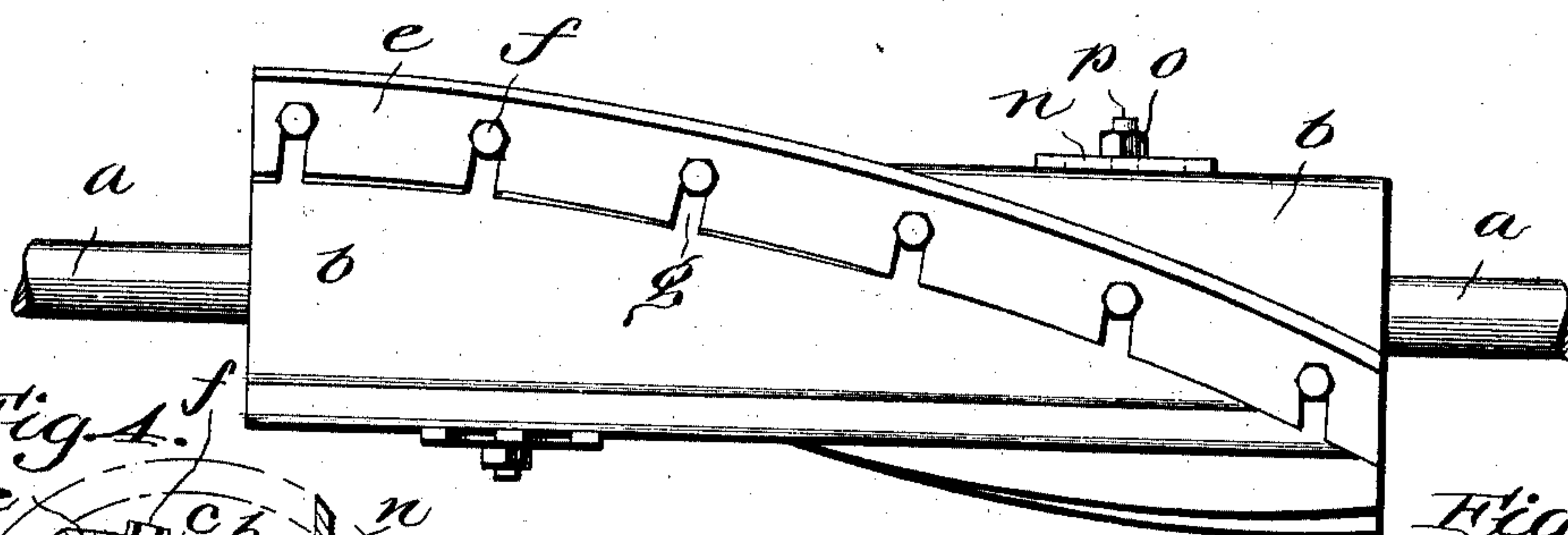


Fig. 4.

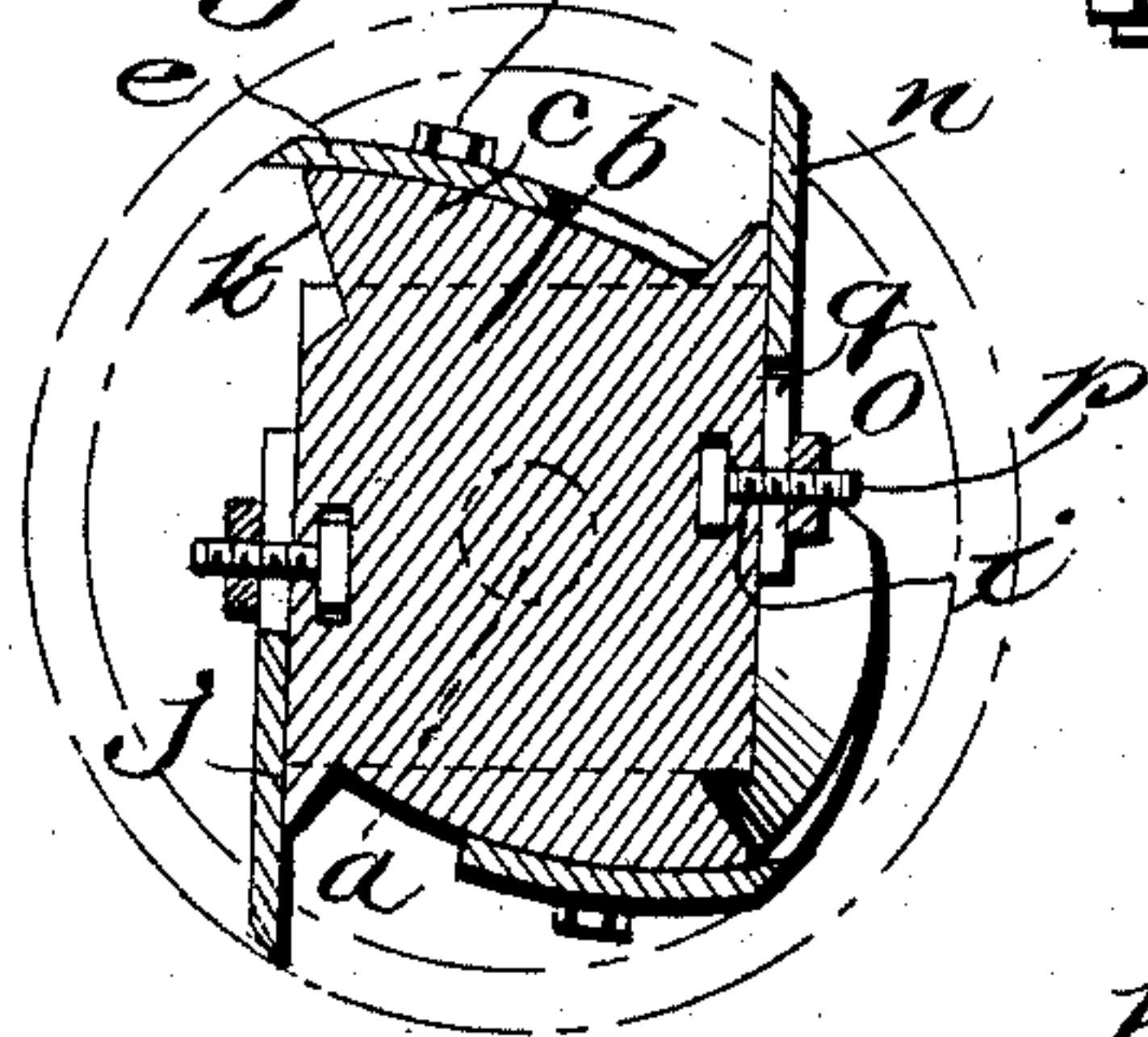


Fig. 3.

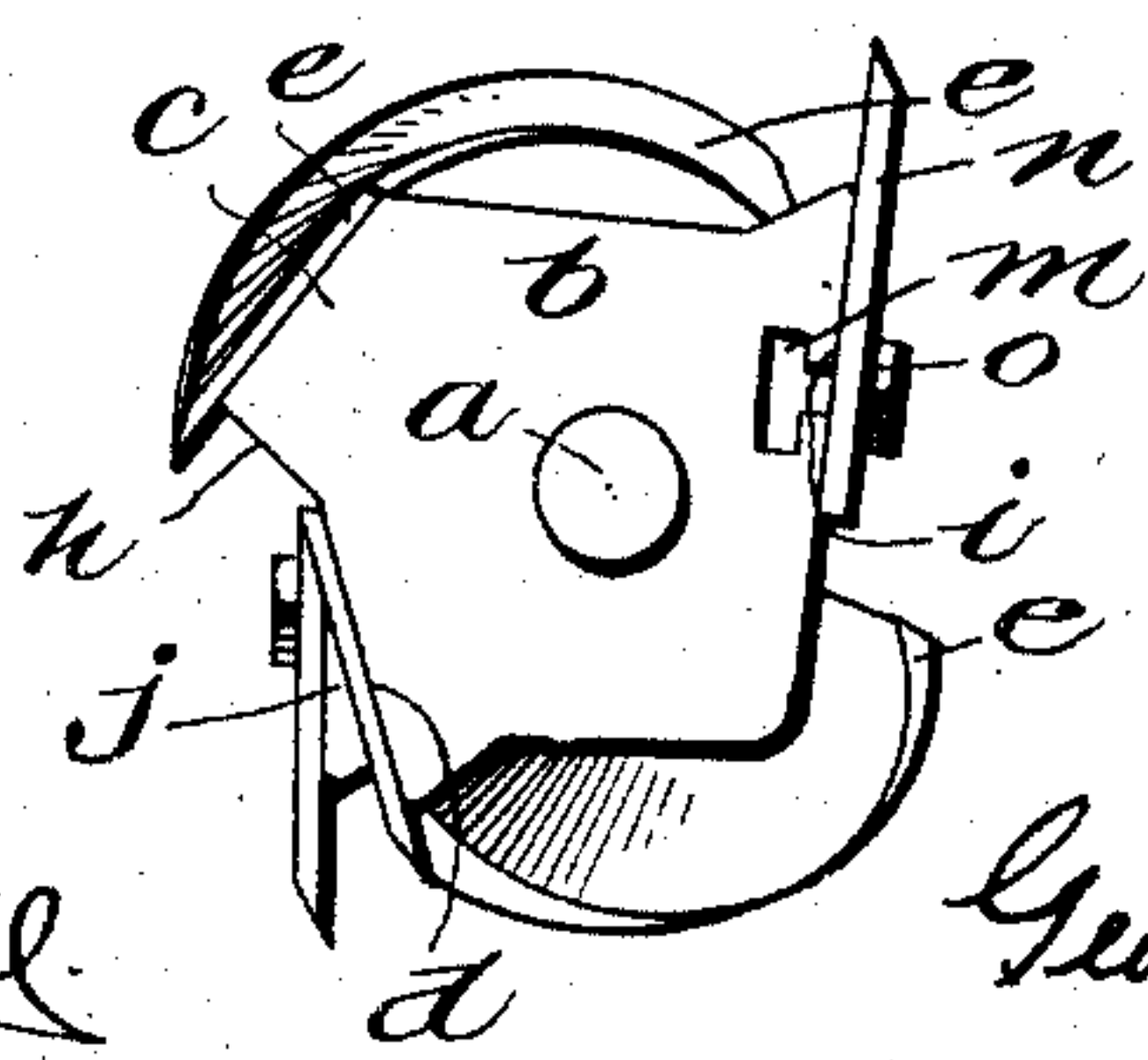
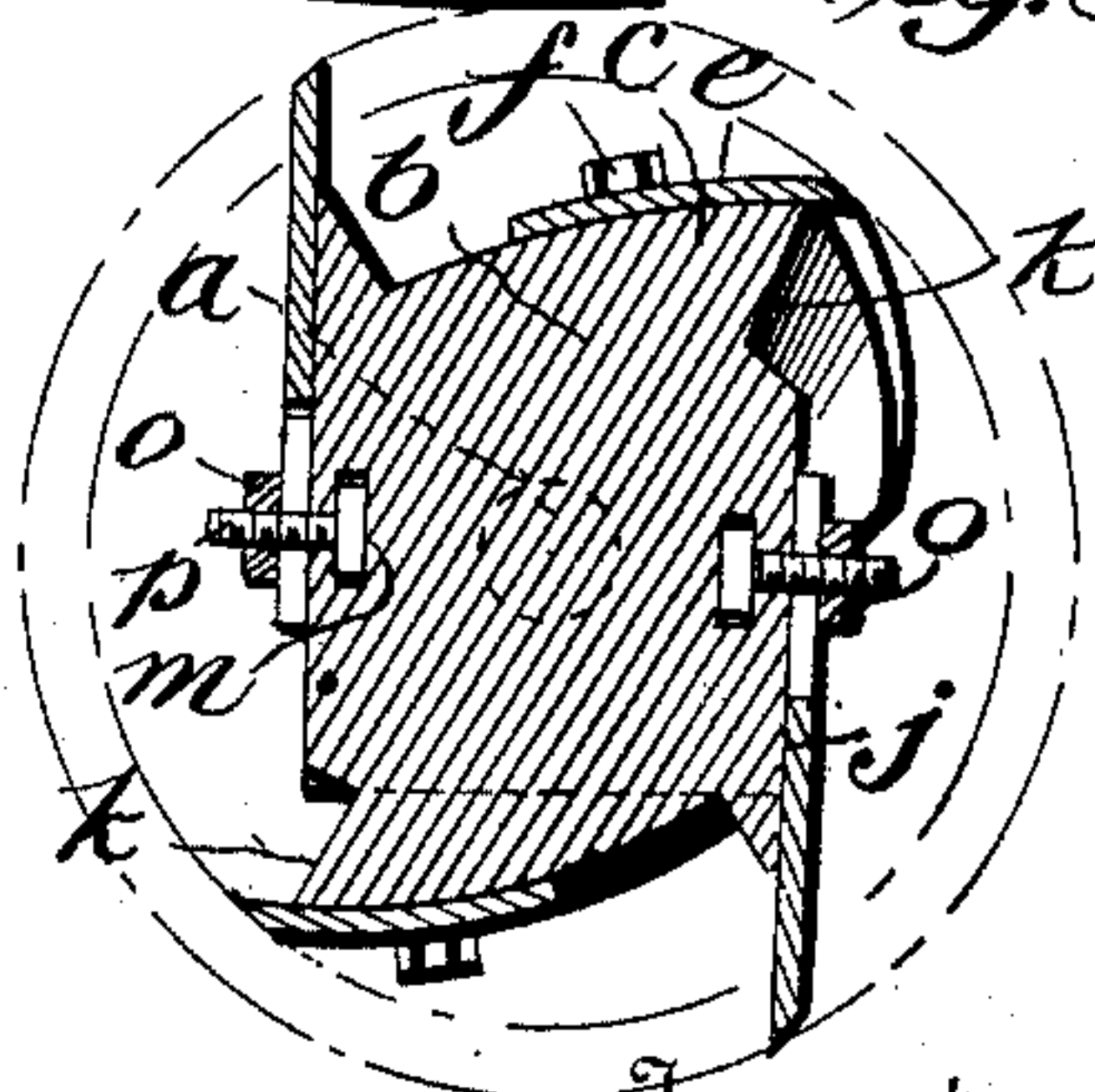


Fig. 5.



Witnesses  
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# UNITED STATES PATENT OFFICE.

GEORGE ROUSSELL, OF LUTCHER, LOUISIANA.

## CUTTER-HEAD.

No. 909,122.

Specification of Letters Patent.

Patented Jan. 5, 1909.

Application filed November 16, 1908. Serial No. 462,953.

*To all whom it may concern:*

Be it known that I, GEORGE ROUSSELL, a citizen of the United States, residing at Lutcher, in the parish of St. James and State of Louisiana, have invented certain new and useful Improvements in Cutter-Heads; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in cutter heads, this application being an improvement upon my former application, Serial No. 401,330, filed November 8, 1907.

The object of my invention is to produce a cutter head suitable for smoothing and beading or rabbeting cypress boards, although it is not restricted to this use.

As is well known, it is very difficult to produce a smooth finish on and to bead cypress boards on account of the peculiar grain of this wood, but by the invention described and illustrated such boards can be perfectly smoothed and beaded.

With these objects in view, my invention consists in the construction and combinations of parts as hereinafter described and claimed.

In the accompanying drawings—Figure 1 is a perspective view of my invention. Fig. 2 is a side view of the same. Fig. 3 is an end view of the same. Figs. 4 and 5 are central cross sections of the same, looking in opposite directions.

*a* represents the shaft and *b* the stock mounted thereon. This stock in cross section is substantially square, except as hereinafter noted, and is provided with two abutments *c* and *d*, each curved in the form of a spiral with relation to the shaft and projecting slightly above the main portion of the stock. These spirals, however, run in opposite directions. To each of the spiral abutments is adjustably fixed a knife *e* by means of nuts *f*, entering slots *g* in the knife. These spiral abutments are thickest at the base, as shown in Fig. 3, and are approximately triangular in shape, being beveled off near the edge as shown at *h*.

The stock *b* is provided with flat faces *i* and *j*, spaced at equal distances apart between the knives *e* and extending about two-thirds of the length of the cutter head from opposite ends thereof. Each of these faces is provided with a long under-cut slot, such as *m*, and on these faces a series of beading or rabbeting knives *n* are secured by means of nuts *o*, which are secured to headed bolts *p*, the heads of which bolts slide in the groove *m*, and which bolts pass through slots *q* in the rabbeting knives. Thus these rabbeting knives are adjustably secured so that each of them can be slid along the cutter head for about two-thirds of its length and so that each of them can be caused to project a greater or less distance from the shaft *a*. The beading or rabbeting knives being adjustable can be placed so as to make separate beads, as shown in Fig. 2, or they may be placed opposite to each other, one on either side of the shaft *a*.

As shown in Figs. 4 and 5, the stock is substantially square in cross section, except for the spiral abutments, and a slight portion beveled off to make the terminal edge of these abutments flat.

By the use of the cutter head described, cypress boards or other boards may be smoothed and beaded at the same time, a perfectly smooth surface being obtained between the beads.

I claim:

1. In a cutter head, the combination with a stock, of a pair of opposed knives thereon curved in opposite spiral directions and extending across said stock diagonally of its axis in substantially the same rotating plane, the cross section of said knives being inclined to every radius of the stock, and beading knives adjustably secured to said stock between said spiral knives, substantially as described.

2. In a cutter head, the combination of a shaft, a stock thereon approximately square in cross section but provided with spiral abutments thereon curved in opposite directions, projecting above the flat surfaces of the square and extending across said stock diagonally of its axis in substantially the same

rotating plane, spirally curved knives se-  
cured to said abutments, the plane of said  
knives being inclined to every radius of the  
stock, and beading knives adjustably se-  
5 cured to said stock between said abutments  
and on both sides of the shaft, substantially  
as described.

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

GEORGE ROUSSELL.

Witnesses:

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JOSEPH W. HOLLEY.