

B. & H. W. PEARSON  
Cutter-Heads.

No. 153,780.

Patented Aug. 4, 1874.

Fig. 1

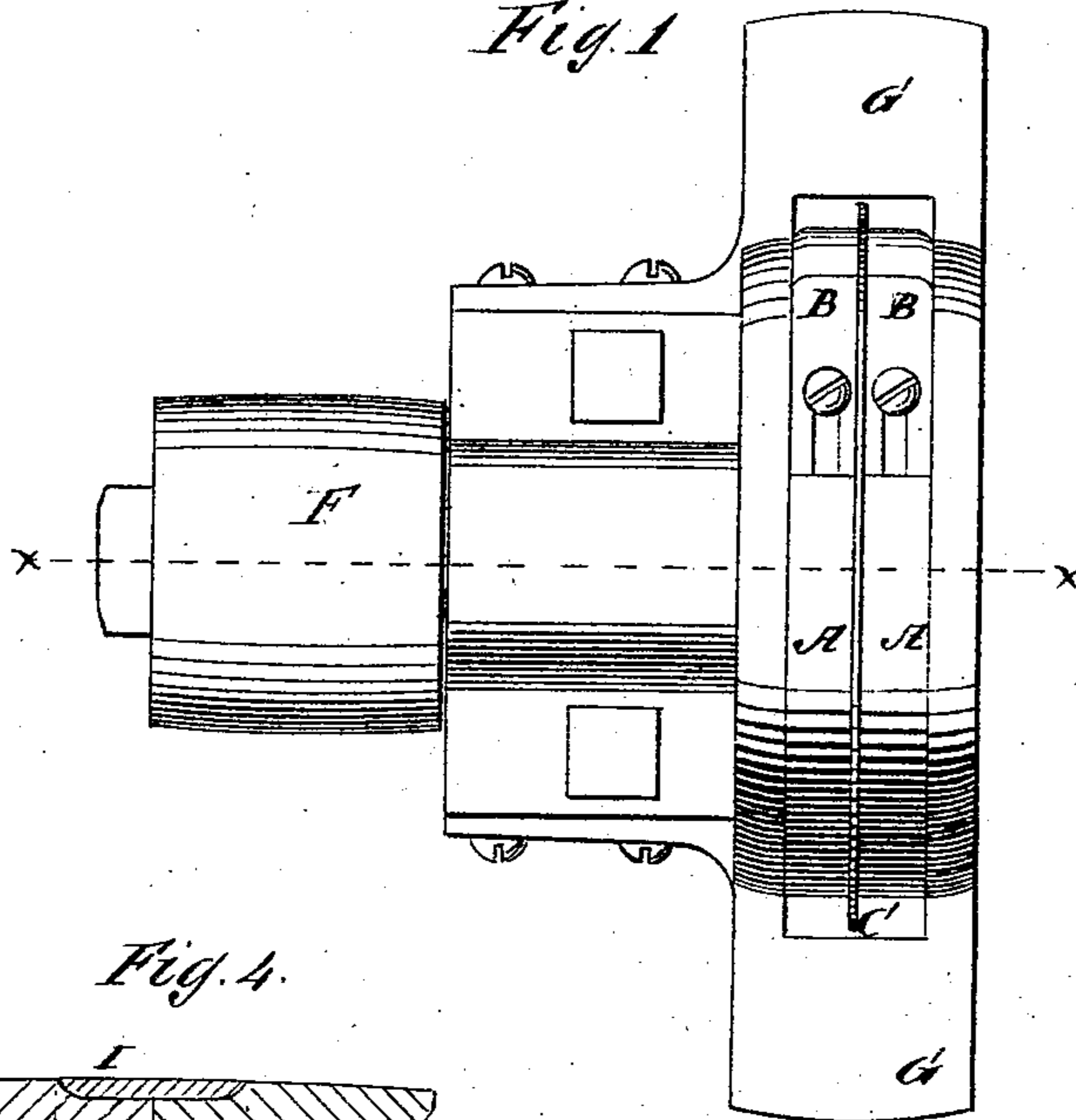


Fig. 4.

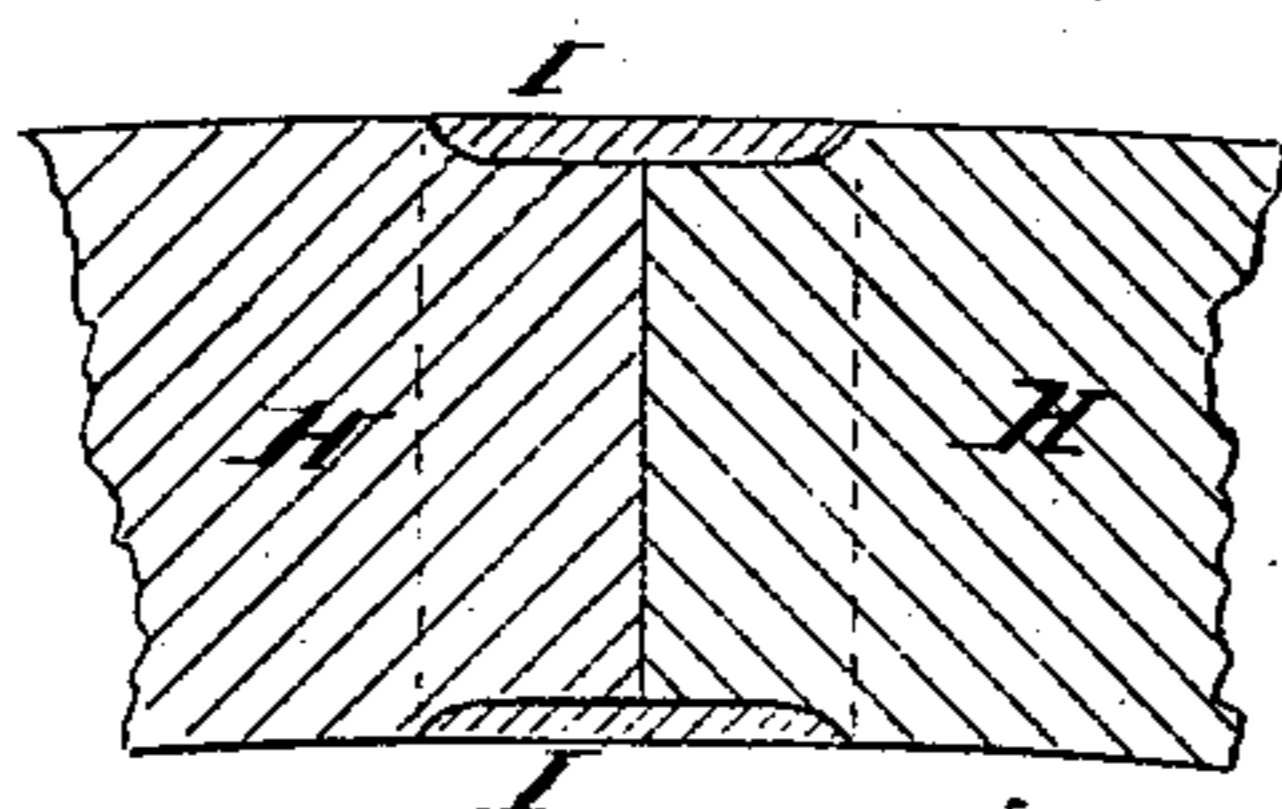


Fig. 2

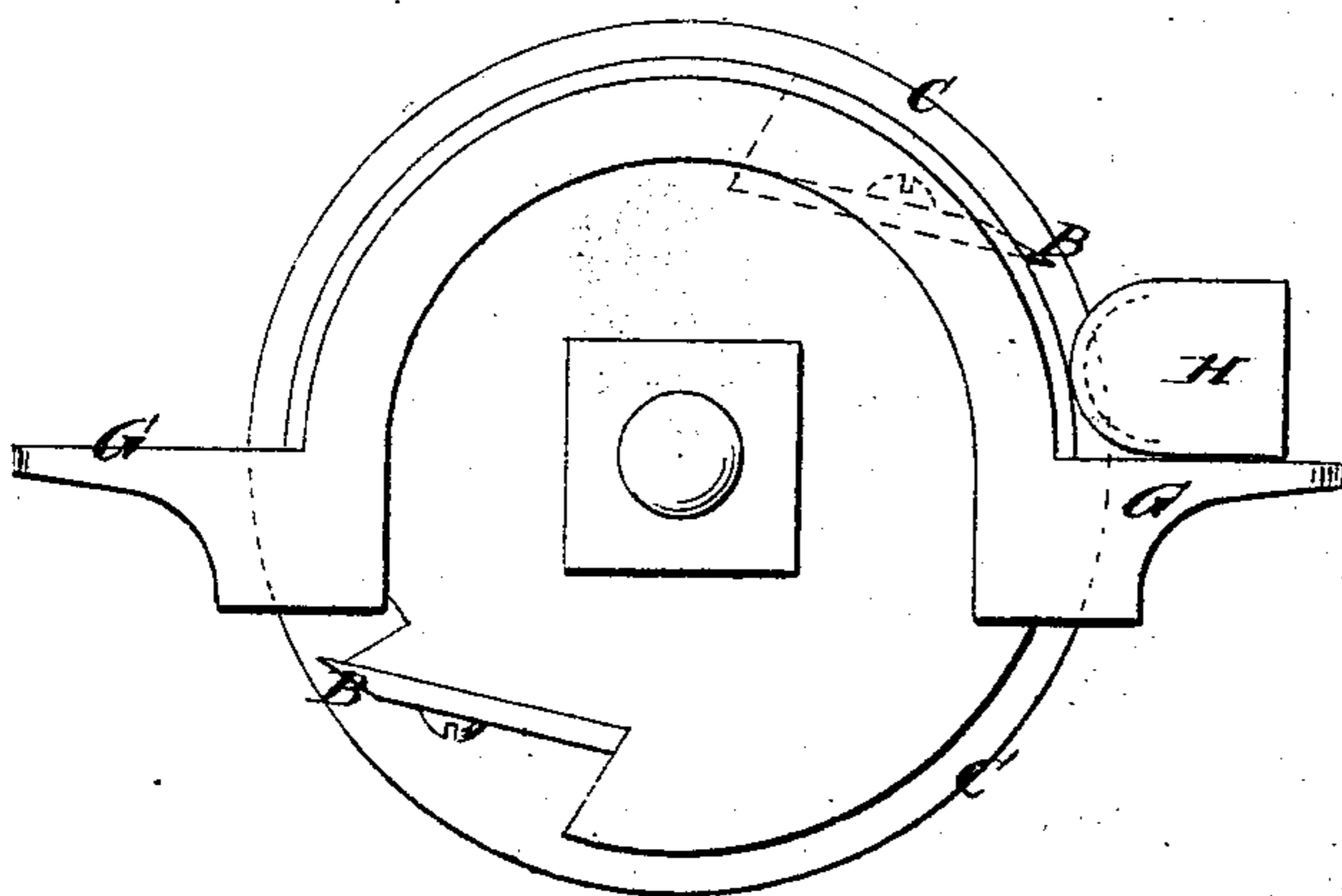
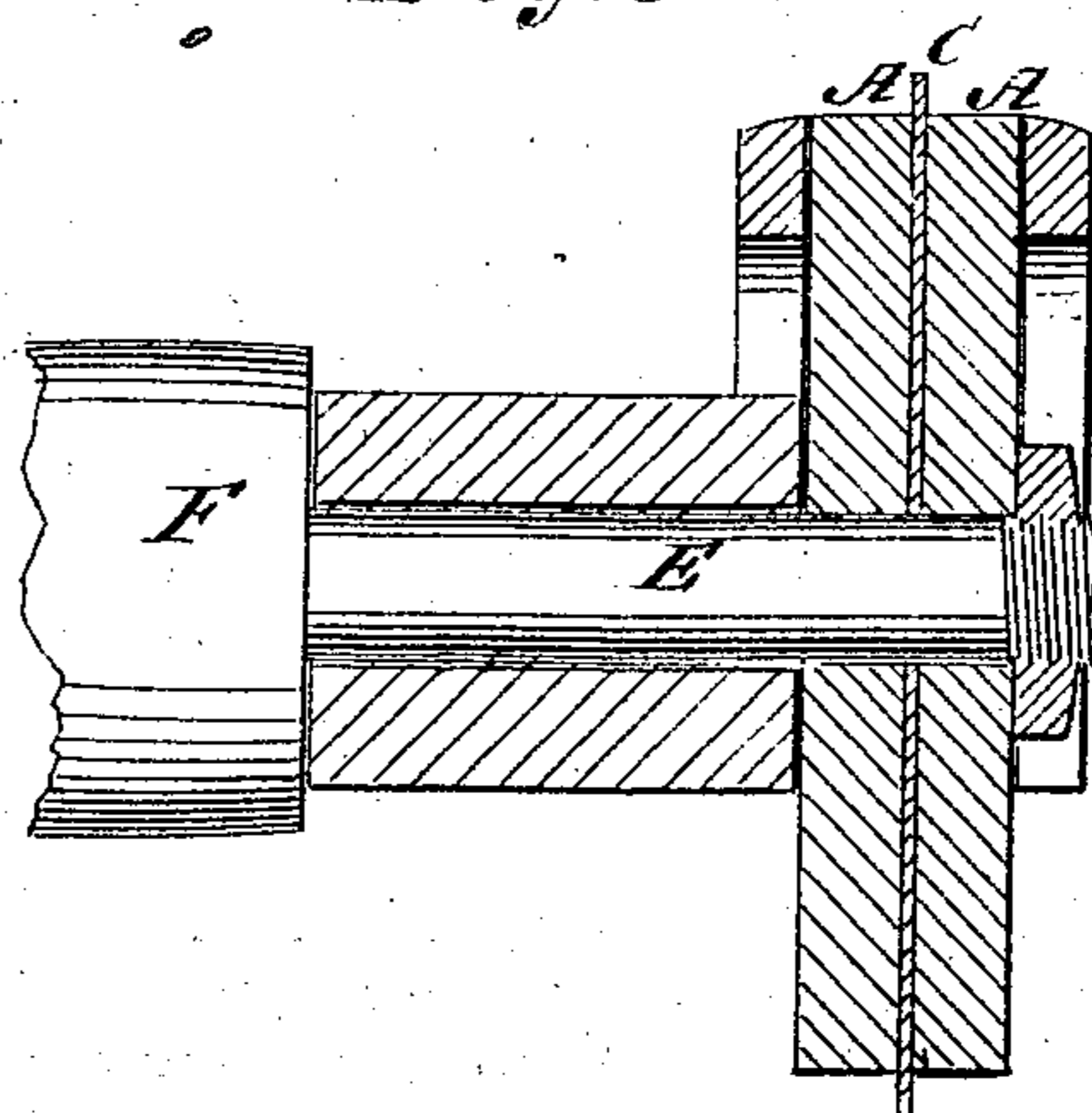


Fig. 3



WITNESSES:

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# UNITED STATES PATENT OFFICE.

BENJAMIN PEARSON AND HORACE W. PEARSON, OF NEWBURYPORT, MASS.

## IMPROVEMENT IN CUTTER-HEADS.

Specification forming part of Letters Patent No. **153,780**, dated August 4, 1874; application filed May 1, 1874.

*To all whom it may concern:*

Be it known that we, BENJAMIN PEARSON and HORACE W. PEARSON, of Newburyport, in the county of Essex and State of Massachusetts, have invented a new and Improved Cutter-Head, of which the following is a specification:

Our invention consists of a rotary cutter, in which two blades are arranged side by side, and separated by a disk of thin metal projecting from the face of other disks, all so contrived that the cutters may be used for cutting the gains in the end of the felly for the ferrule by which they are connected, the disk of thin metal between the cutters running against the ends of the felly, to gage the cutters to the felly lengthwise, and the disks from which the cutters project being to regulate the depth of the cut.

Figure 1 is a plan view of our improved cutter-head. Fig. 2 is a side elevation. Fig. 3 is a section taken on the line *xx* of Fig. 1. Fig. 4 is a section of a portion of the felly, at the joint, showing the shape of the ends which our improved cutter is employed to make, also showing the connecting ferrule fitted on.

Similar letters of reference indicate corresponding parts.

A represents a couple of disks of metal about as thick as the width of the gains to be cut in the felly. B represents cutters projecting from the face of these disks, said cutters being as wide as the gains are to be. C represents a thin metal disk between, the cutter-holding disk being a little larger in diameter than said disks, and projecting beyond them to run against the ends of the felly to be

dressed for a guide to gage the cutters for making the gains the exact width required on the ends of the felly. These disks are secured fast on a mandrel, E, to be revolved by a belt on the pulley F. G represents rests for the work to be held on for being presented to the cutter. H represents a felly resting on one of the rests, as when applied to the cutters with its end bearing against one side of disk C.

The felly being held with one of the ends against the disk C, and its side against one of the disks A, and slowly revolved as the cutting progresses, will have, when turned one revolution, a gain cut in it, exactly corresponding in size and form to the ferrule I, in which it is to be fitted for connecting the ends together. Each end will be presented in turn to the cutter to be prepared in the same way. The ferrule may be dressed on each side of the cutter at the same time. The ferrule will be made in malleable metal castings, to be cheap, and of uniform size and shape.

By this improved cutter the work may be done much faster and more accurately than it can be by hand.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The combination of rests G with the cutter-head, composed of disks A and C and cutter B, substantially as described.

BENJAMIN PEARSON.

HORACE WARREN PEARSON.

Witnesses:

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