

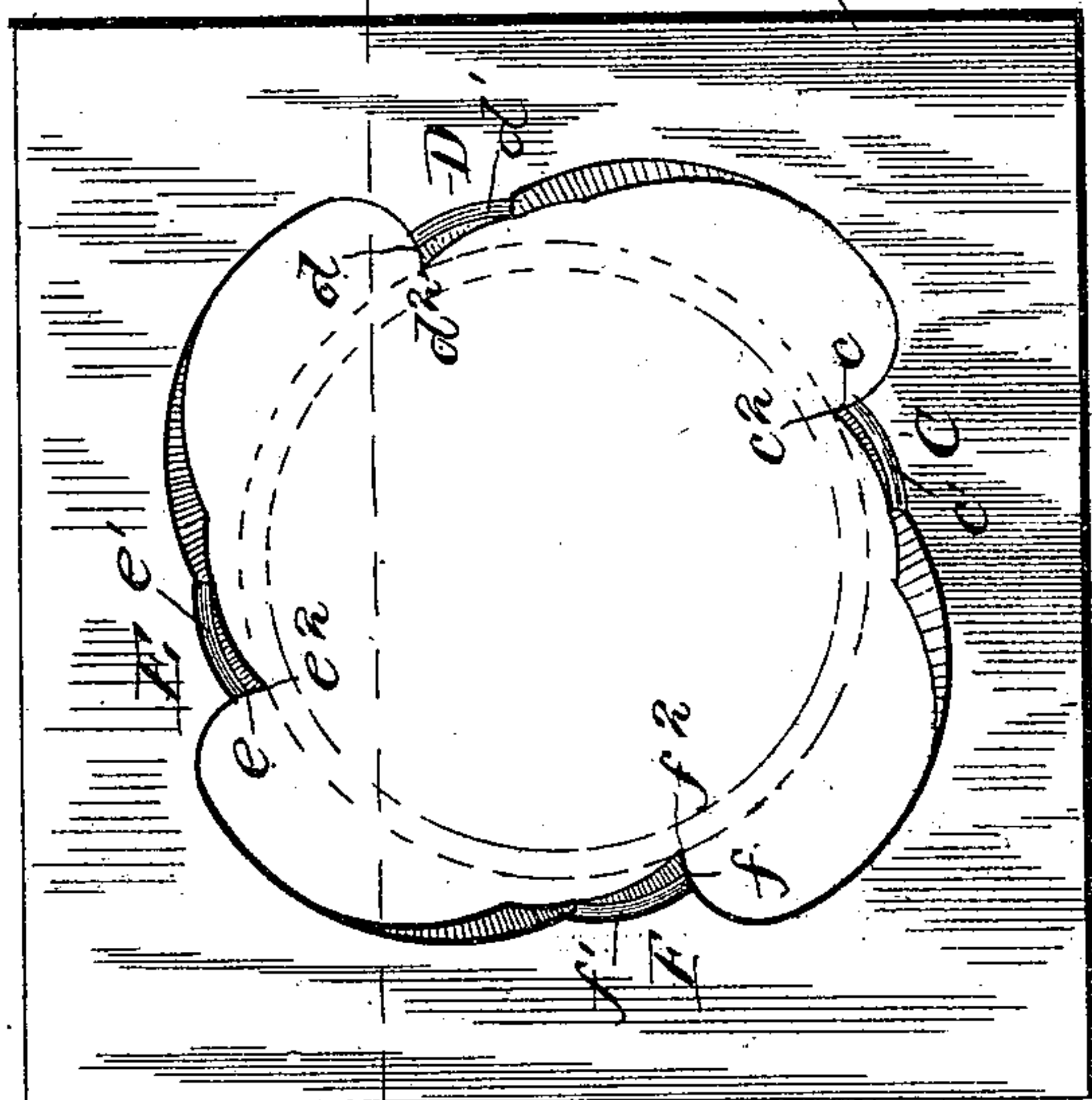
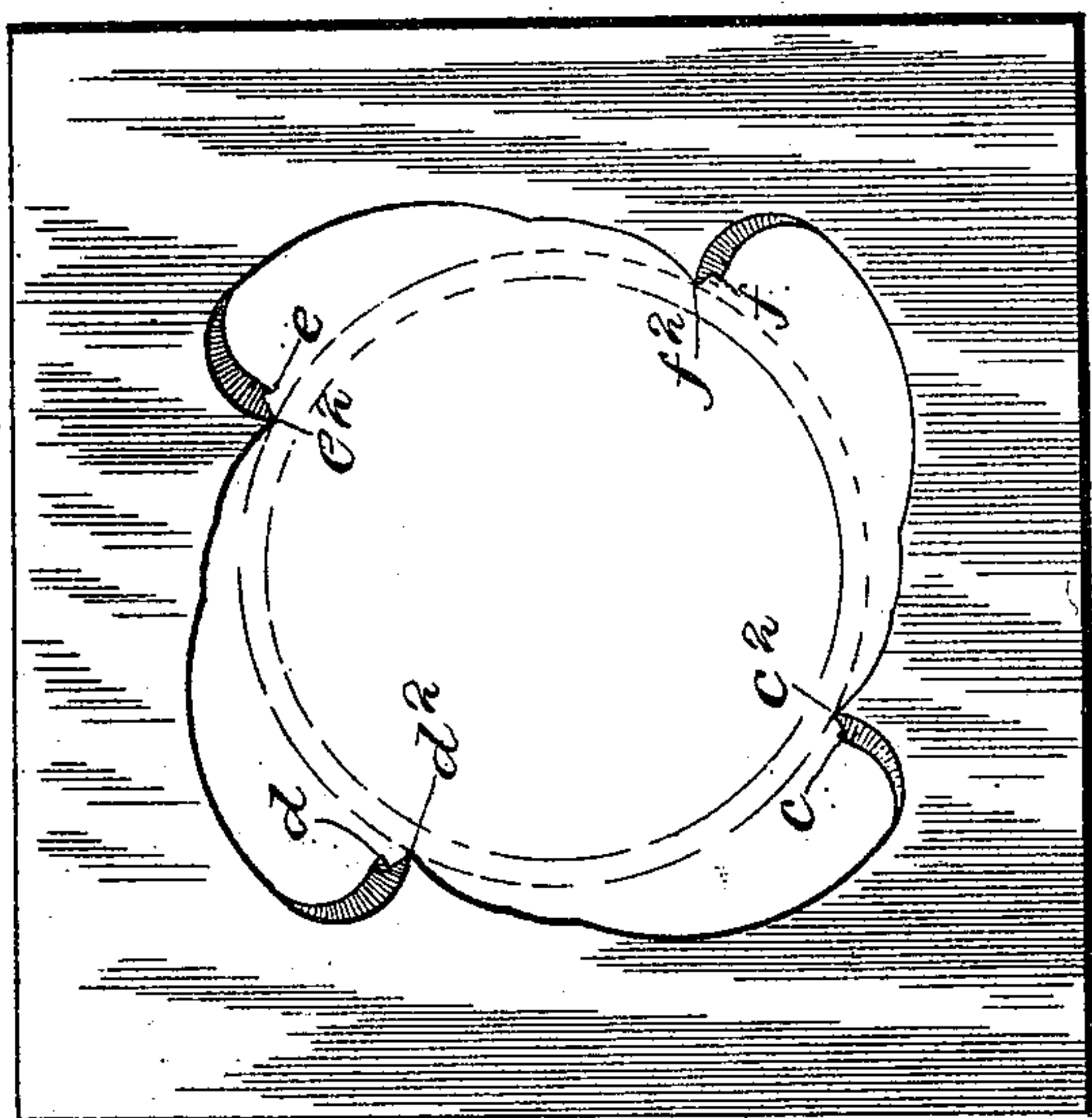
No. 624,051.

**Patented May 2, 1899.**

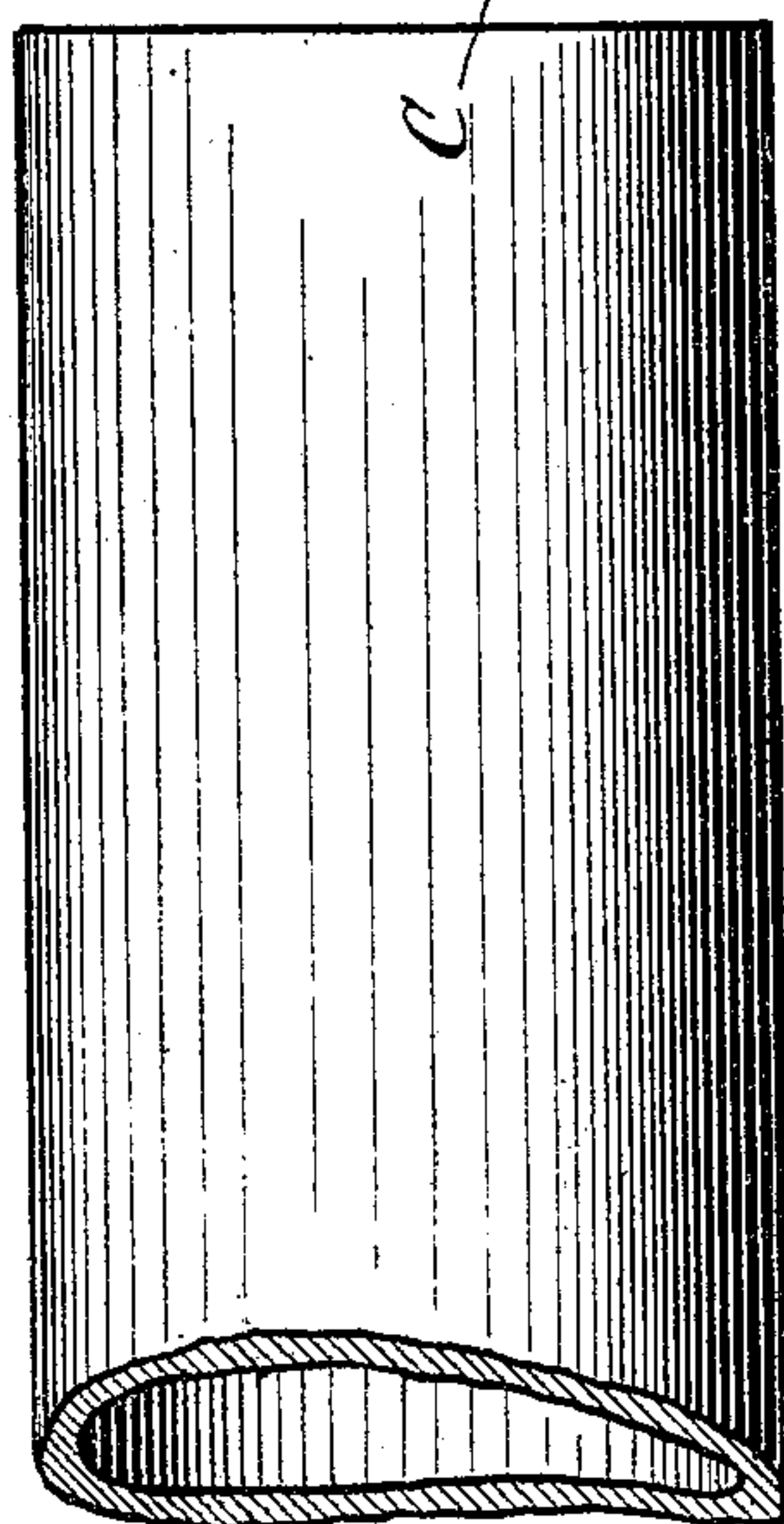
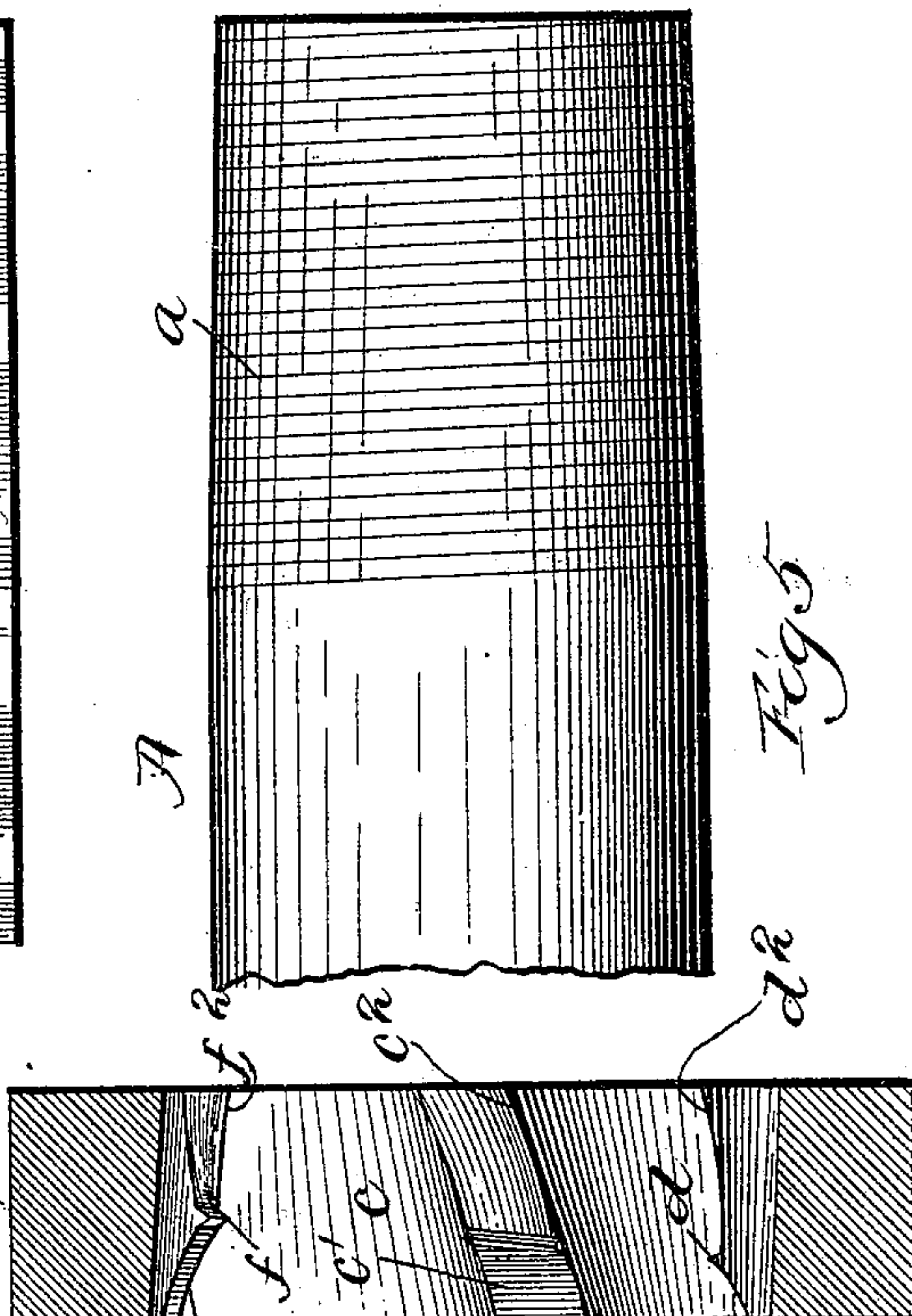
**G. KLAHRE.**  
**PIPE TRIMMER.**

(Application filed Nov. 21, 1898.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

GUSTAV KLAHRE, OF CHICAGO, ILLINOIS.

## PIPE-TRIMMER.

SPECIFICATION forming part of Letters Patent No. 624,051, dated May 2, 1899.

Application filed November 21, 1898. Serial No. 696,976. (No model.)

*To all whom it may concern:*

Be it known that I, GUSTAV KLAHRE, a citizen of the United States of America, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Pipe-Trimmers, of which the following is a full, clear, and exact description, and which are illustrated in the accompanying drawings, forming a part thereof.

10 The invention relates to tools for trimming pipe down to standard size and with a suitable taper preliminary to cutting thereon a screw-thread. The common practice is to reduce pipe to standard gage and tapering form by the thread-cutting die itself, and the work is extremely slow and laborious.

The object of my invention is to provide a tool by means of which the inequalities in the surface of the pipe may be removed, the pipe reduced to standard gage and to tapering form in advance of the application thereto of the thread-cutting die; and this object is attained by the construction hereinafter fully described, and which is illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of the tool. Fig. 2 is a rear elevation of the same. Fig. 3 is a side elevation of a piece of pipe before being operated upon. Fig. 4 is a sectional view on the line 4 4 of Fig. 1, the inclination of the cutting-blades being exaggerated for the purpose of clearness; and Fig. 5 is an elevation of the pipe-section after having been operated upon by the tool, the taper of the pipe being exaggerated for clearness of illustration.

The trimming-tool consists of a square steel block B of the general form of the ordinary thread-cutting die and is adapted to be held in a stock in the same manner as the last-mentioned tool. The manner of mounting such tools is so well known that I have not deemed it necessary to show the stock.

The block B is centrally apertured, the diameter of the aperture being controlled by the size of the pipe A to which it is to be applied. The aperture of the block is provided with a plurality of instanding ribs, as C D E F, preferably four in number, these ribs being substantially longitudinal as to the aperture. Each of the ribs is provided with a single cutting-tooth, as *c d e f*, the several

teeth being arranged in spiral alinement, so that as they are applied to the end of the pipe A they serve as a feed to advance it thereupon. The advancing edge of each of the ribs forms a cutting-blade, and that portion *c' d' e'* which is between the front face of the block B and the feeding-teeth referred to recedes sharply from the tooth outwardly and serves as a roughing-blade for cutting off any ridges or inequalities which may be left upon the surface of the pipe in its construction. That portion of each of the ribs, as *c<sup>2</sup> d<sup>2</sup> e<sup>2</sup>*, between the cutting-teeth and the rearward face of the block B tapers inwardly at a pitch corresponding with the taper to which it is desired to reduce the end of the pipe.

The tool being applied to the end of the pipe A, the roughing-blades smooth it down by the removal of any ridges or other excrescences, and the teeth *c d e f* bite into it and cause the advance of the tool as it is rotated. The blades *c<sup>2</sup> d<sup>2</sup> e<sup>2</sup>* reduce the diameter of the pipe to bring it to standard gage. The length of these latter blades correspond with the length of the thread desired to be cut upon the pipe.

The tool is removed from the pipe end by being turned backwardly and leaves it in the condition represented at *a* in Fig. 5. The pitch at which the teeth are set, the taper of the cutting-blades, and the taper of the pipe are somewhat accentuated in the drawings for the purpose of clearness. In practice it will be desirable to give the feeding-teeth the pitch of the teeth of the thread-cutting die which is to follow the trimming-tool, so that the finished threads will not be marred by the marks left by these feeding-teeth. After a pipe has been thus smoothed it is obvious that the thread-cutting die will traverse it with much greater ease, as it is not required to reduce the pipe as well as cut the thread.

I claim as my invention—

1. In a pipe-trimmer, an apertured block having inwardly-directed converging blades, each blade having at its outer end a single instanding feeding-tooth.

2. In a pipe-trimmer, an apertured block having an inwardly-directed blade, the edge of which is inclined toward the axis of the aperture, and a single feeding-tooth projecting

beyond the edge of the blade and being located at its end most remote from the aperture-axis.

3. In a pipe-trimmer, an apertured block  
5 having a plurality of instanding, axially-disposed ribs, each rib having a cutting edge inclined toward the axis of the aperture, a tooth at the outer end of each blade, the inclination of the several blades being uniform  
10 from their ends to their teeth, and the alinement of the several teeth being spiral.

4. In a pipe-trimmer, an apertured block having a plurality of approximately axially-disposed ribs in its aperture, each rib having  
15 a longitudinally-disposed cutting edge oblique to the axis of the aperture, the incli-

nation of the more remote end of the blade being accentuated, each blade having an instanding tooth at the inner end of its more inclined portion, the several teeth being in  
20 spiral alinement.

5. In a pipe-trimmer, a block having an aperture with instanding axially-disposed cutting-ribs, the edges of such ribs being oblique to the axis of the aperture, the obliquity being greater at one end of the ribs than at the other, whereby the trimmer is provided with  
25 roughing and trimming blades.

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Witnesses:

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