

No. 632,604.

Patented Sept. 5, 1899.

C. H. WAYMOTH.
ANNULAR CUTTER.

(Application filed Nov. 25, 1898.)

(No Model.)

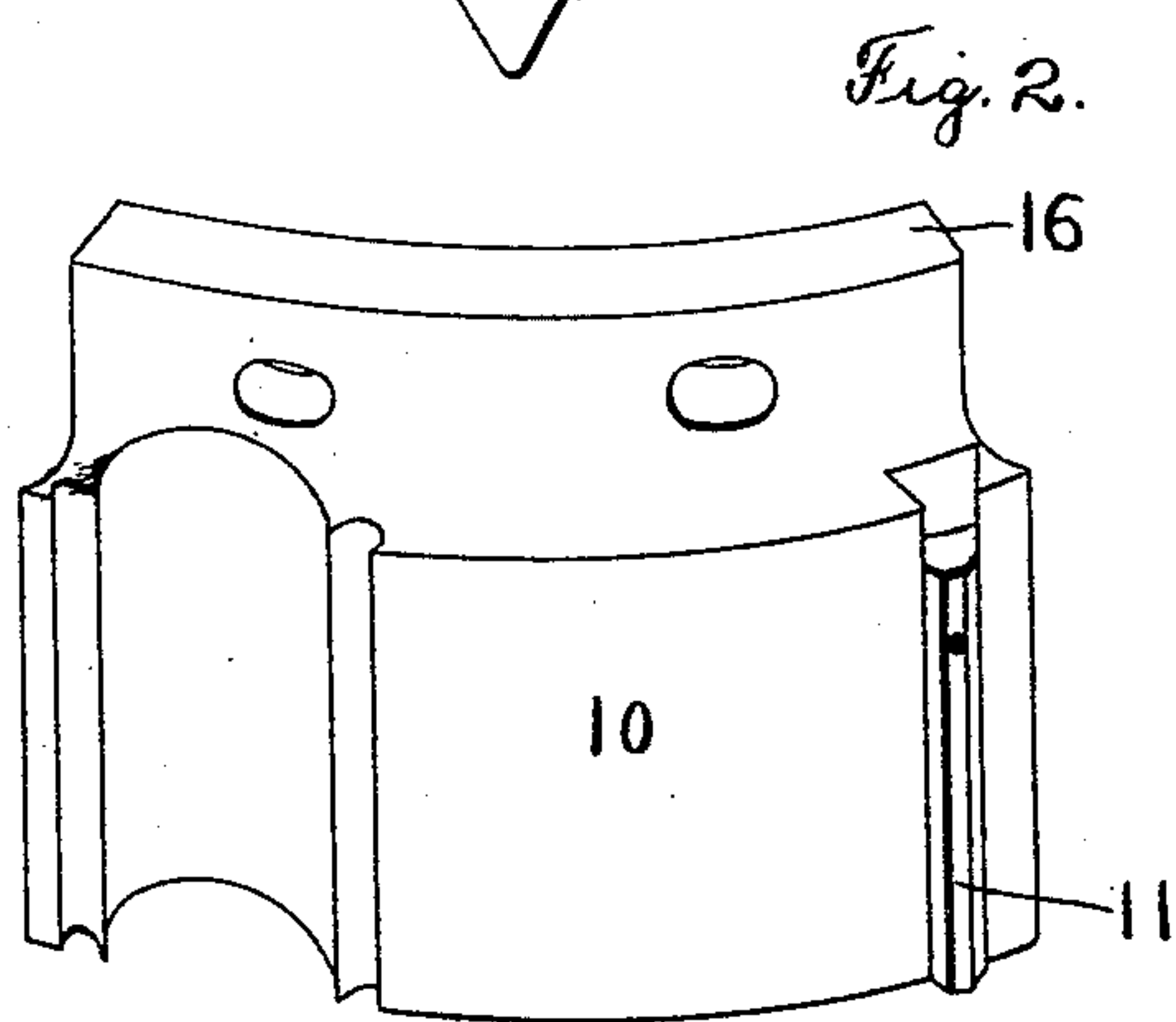
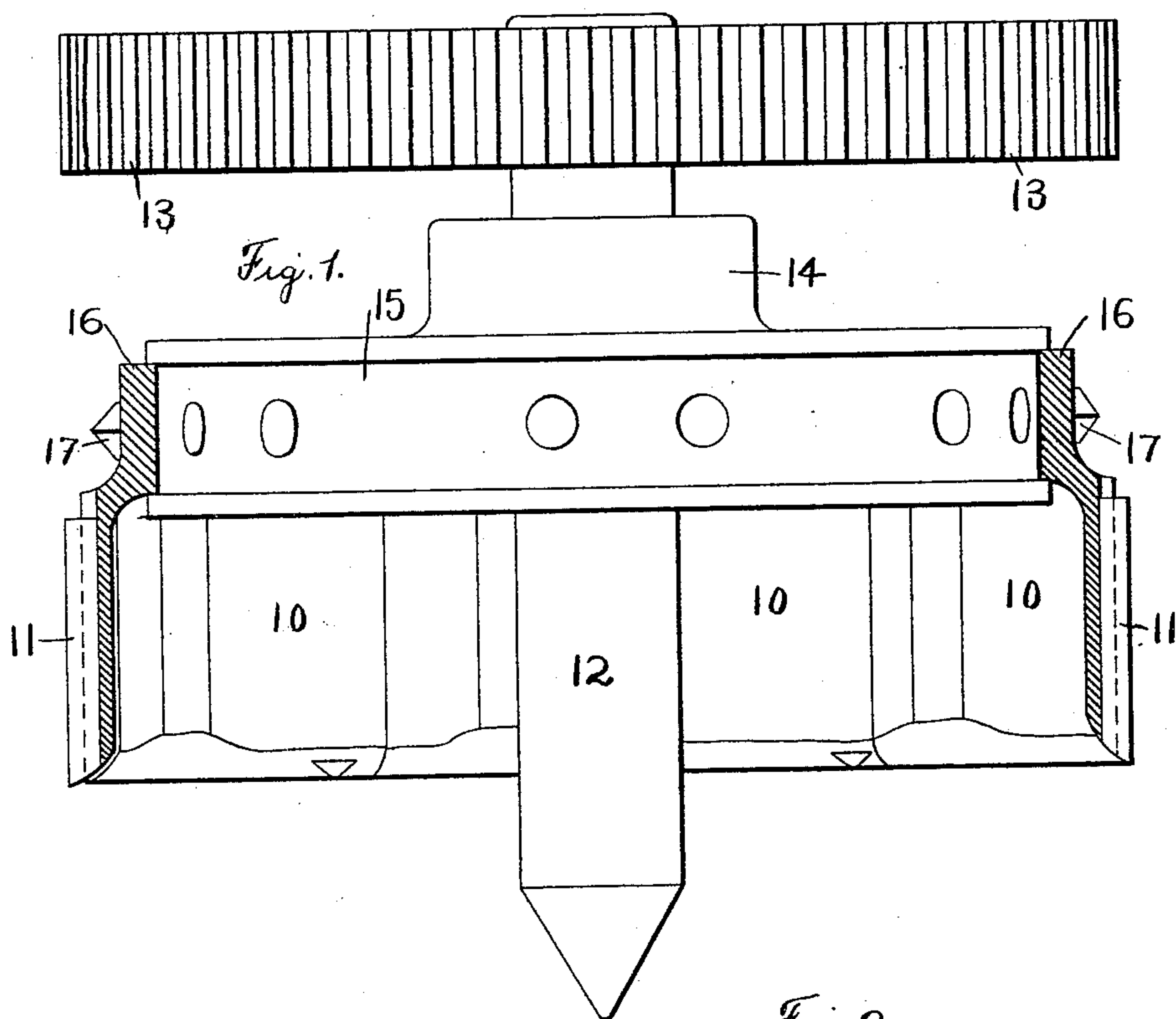
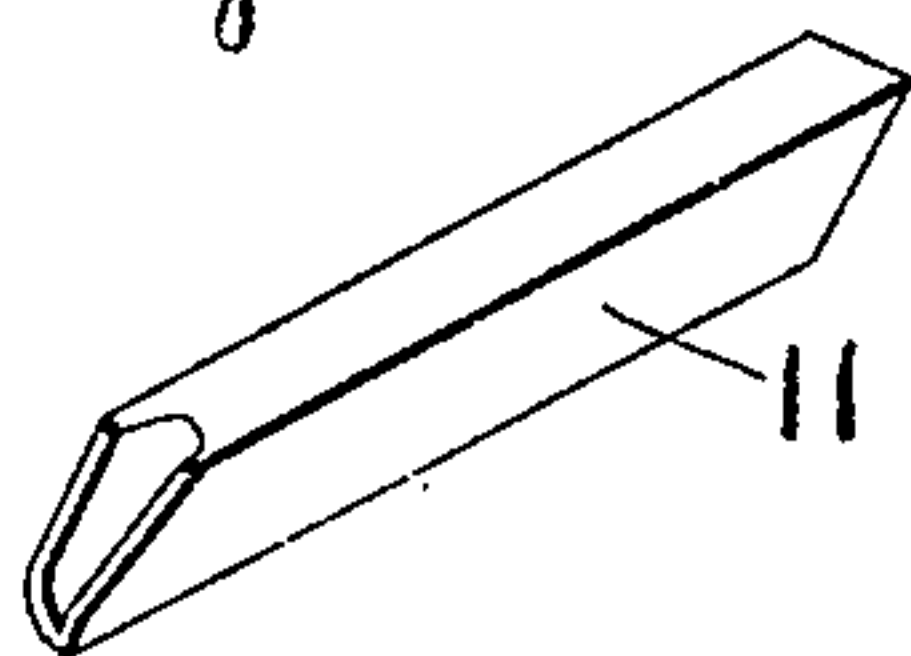


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

CHARLES H. WAYMOTH, OF FITCHBURG, MASSACHUSETTS, ASSIGNOR OF
ONE-HALF TO AUGUSTINE D. WAYMOTH, OF SAME PLACE.

ANNULAR CUTTER.

SPECIFICATION forming part of Letters Patent No. 632,604, dated September 5, 1899.

Application filed November 25, 1898. Serial No. 697,369. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. WAYMOTH, a citizen of the United States, residing at Fitchburg, in the county of Worcester and State of Massachusetts, have invented a new and useful Annular Cutter, of which the following is a specification.

My invention relates to the annular cutters employed in certain classes of wood-turning lathes; and the object of my invention is to provide composite cutter-sections for the annular cutters, each section comprising a pattern-section and a cut-off or marking chisel secured therein.

To this end my invention consists of the composite cutter-sections and the combinations therewith, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a side view, partially in section, of an annular cutter constructed according to my invention. Fig. 2 is a perspective view of one of the composite cutter-sections, and Fig. 3 is a perspective view of one of the cut-off or marking chisels.

In that class of lathes which are employed for turning moldings, chair-legs, and similar articles the pattern is now frequently formed by an annular cutter which is mounted in a movable carriage, and in some instances in order to separate successive pattern-lengths of the work being produced it is desirable that the annular cutters should be provided with cut-off or marking chisels. This object has heretofore been accomplished in two ways. In the older constructions the annular cutters have been formed of one integral piece of metal. The manufacture of one-piece cutters is necessarily expensive, and the use of such cutters is objectionable, as it has been found difficult to keep them sharp. In later constructions the annular cutters comprise separate sections, which are secured to a cutter-head. These sectional annular cutters have in some instances been provided with cut-off or marking chisels formed by independent sections or pieces. This form of construction is objectionable in practice, as said marking or cut-off chisels are compara-

tively weak and are liable to chatter and in some instances may even be broken.

The especial object of my present invention is therefore to provide a sectional annular cutter with cut-off or marking chisels which will be rigidly supported, so that they will not be liable to chatter and break, and which will allow the adjustment or removal of said cut-off or marking chisels when desired. To accomplish this purpose, I preferably employ curved pattern-sections, each one of which forms an aliquot part of the perimeter of the annular cutter, and dovetailed or otherwise secured in each section I provide one or more cut-off or marking chisels.

Referring to the drawings and in detail, 12 designates the stud or shaft of the annular cutter. Fastened onto the upper end of the shaft 12 is a gear 13 for turning the annular cutter when the same is being operated. Secured on the shaft 12 below the gear 13 is a casting or head 14. The casting or head 14 is provided with a circumferential groove 15. The curved pattern-sections 10, each one of which forms an aliquot part of the perimeter of the annular cutter, are provided with base-sections 16, which fit the circumferential groove 15, as shown in Fig. 1. The pattern-sections 10 are secured to the head 14 by bolts 17. Each of the pattern-sections 10 has a dovetail or groove cut in its outer face to receive a marking or cut-off chisel 11. The cut-off or marking chisels 11 may of course be secured in their adjusted positions by wedges or set-screws, if desired; but I have found in practice that by driving the chisels tightly into their sockets they will be removably secured in place with the necessary firmness. By peening or bending in the sides of the dovetail grooves in the pattern-sections the cut-off or marking chisels 11 may be secured in place as tightly as desired. By means of this construction it will be seen that the cut-off or marking chisels will be supported or secured in their adjusted positions in the pattern-sections, and at the same time said chisels may when necessary be knocked out to be sharpened or filed up, as illustrated in Fig. 3, and when said chisels wear more rapidly than the rest of the cutter they can be

readily set down to compensate for such wear. Each cut-off or marking chisel preferably has a hole or socket bored therein, as shown in the drawings, to receive the end of a tool or rod for loosening the same when it has become stuck or rusted in place. Furthermore, by means of this construction the cut-off or marking chisels may be removed and plain sections or chisels substituted therefor when it is not desired to divide the work into separate pattern-lengths.

I am aware that changes may be made in my cutter by those skilled in the art, and I do not wish, therefore, to be limited to the details of construction which I have herein shown and described; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. As an article of manufacture, a cutter-section for the annular cutters of wood-turning lathes, comprising a curved, transversely-fluted, pattern-section having a socket in its outer surface, and a cut-off or marking chisel set into said socket so as to be supported by the material of the cutter-section, substantially as described.

2. An article of manufacture, a cutter-section comprising a curved pattern-section 10 adapted to form an aliquot part of the perimeter of an annular cutter for wood-turning lathes, and a cut-off or marking chisel 11 having a triangular cross-section dovetailed into the outer surface of the pattern-section 10, substantially as described. 35

3. In an annular cutter for wood-turning lathes, the combination of a head or casting 14 having a circumferential groove 15, a plurality of cutter-sections 10 each forming an aliquot part of the perimeter of the annular cutter, said sections having pieces 16 engaging the circumferential groove 15, bolts 17 for securing the cutter-sections in place, and a cut-off or marking chisel 11 dovetailed into the outer face of each cutter-section, substantially as described. 40 45

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

CHARLES H. WAYMOTH.

Witnesses:

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