

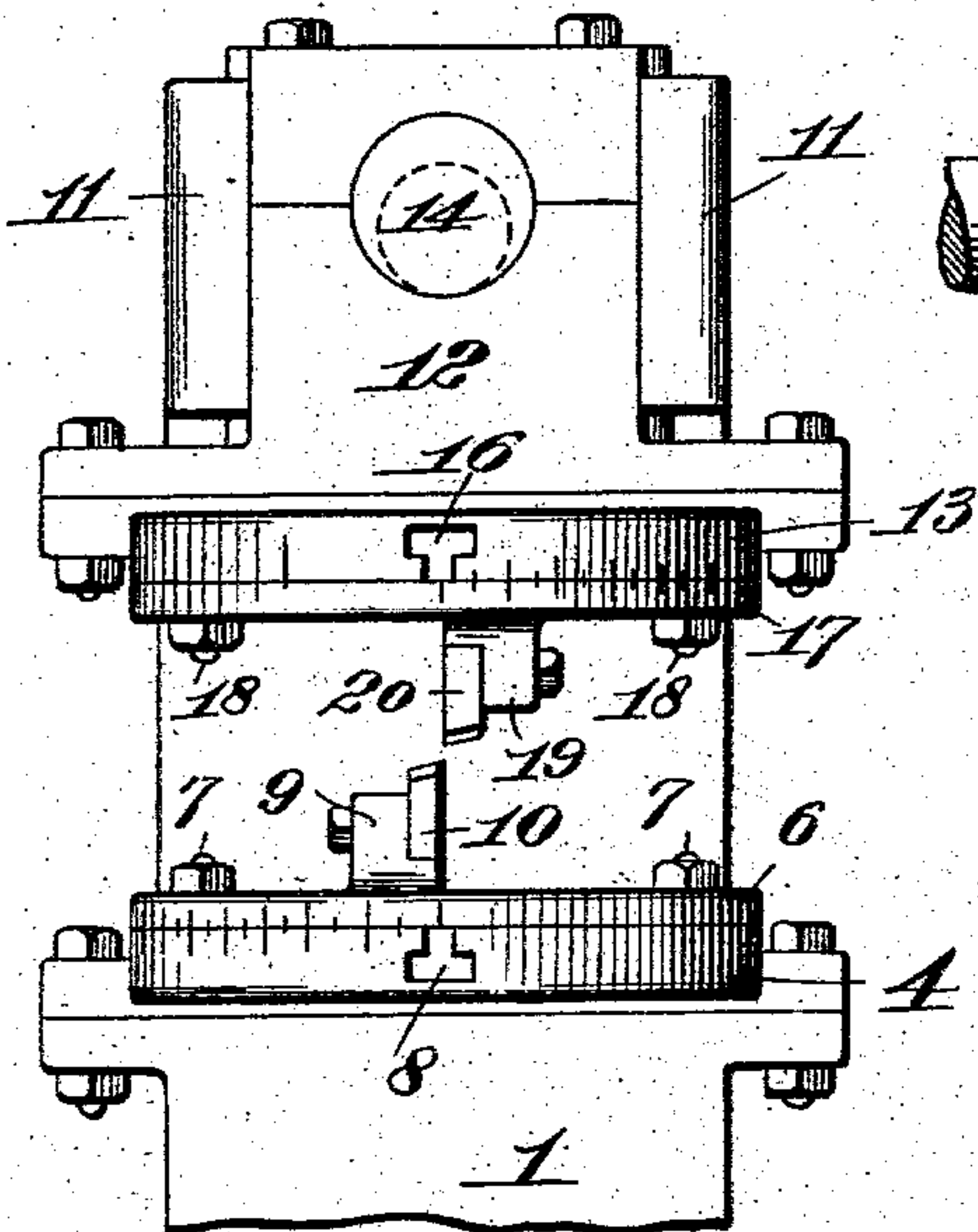
No. 740,763.

PATENTED OCT. 6, 1903.

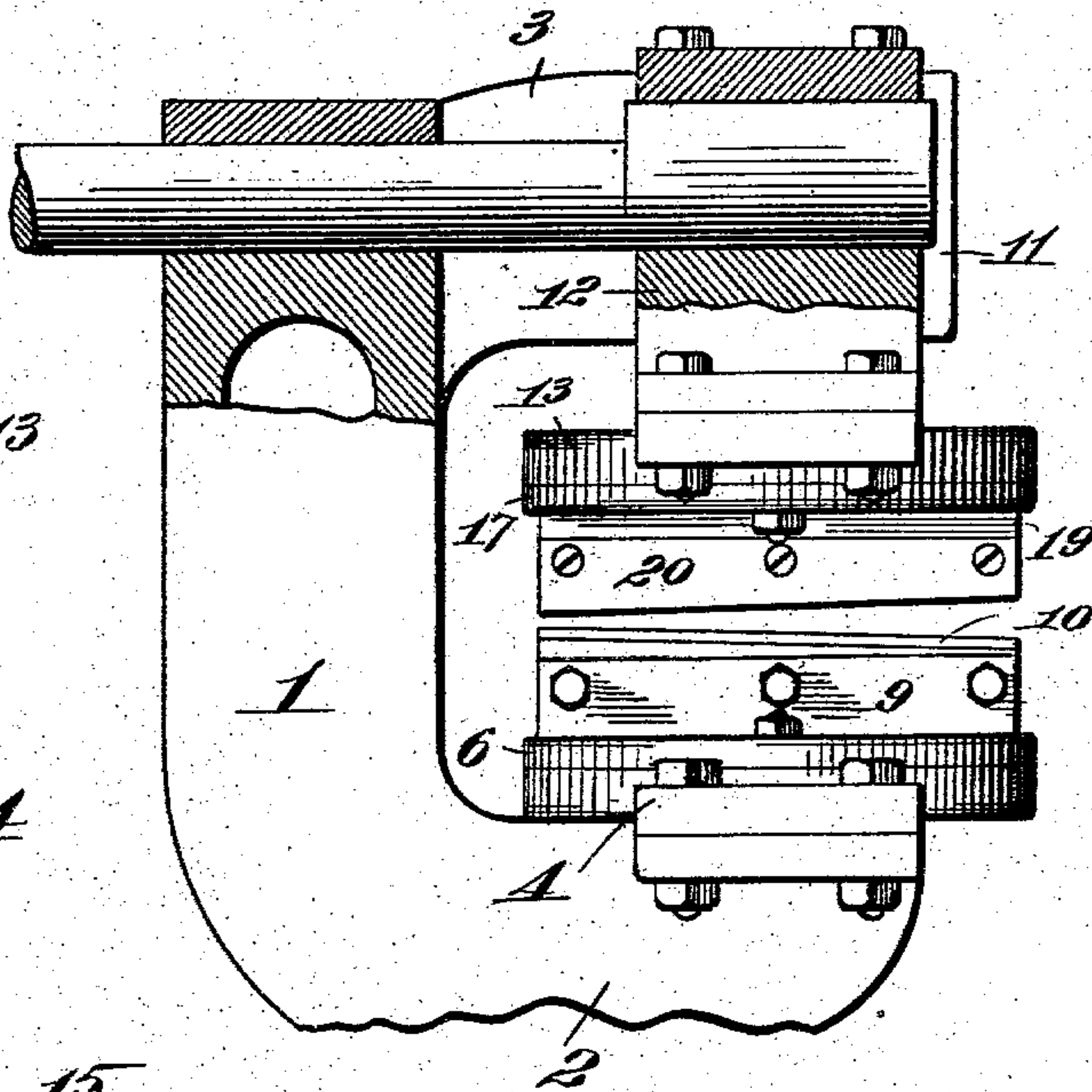
F. G. KOEHLER.  
COMBINED SPLIT AND CROSSCUT SHEARS.  
APPLICATION FILED JUNE 15, 1903.

NO MODEL.

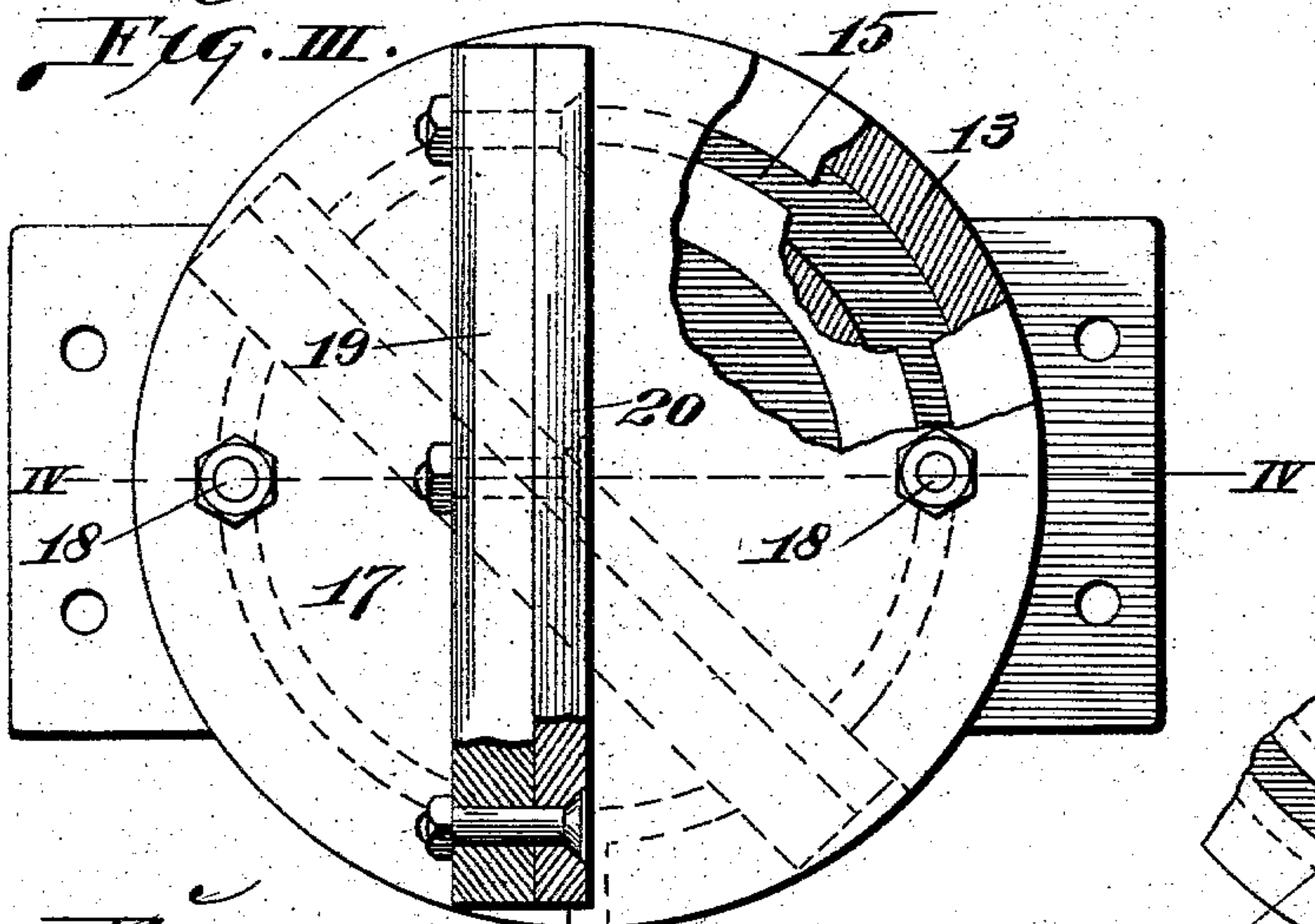
*Fig. I.*



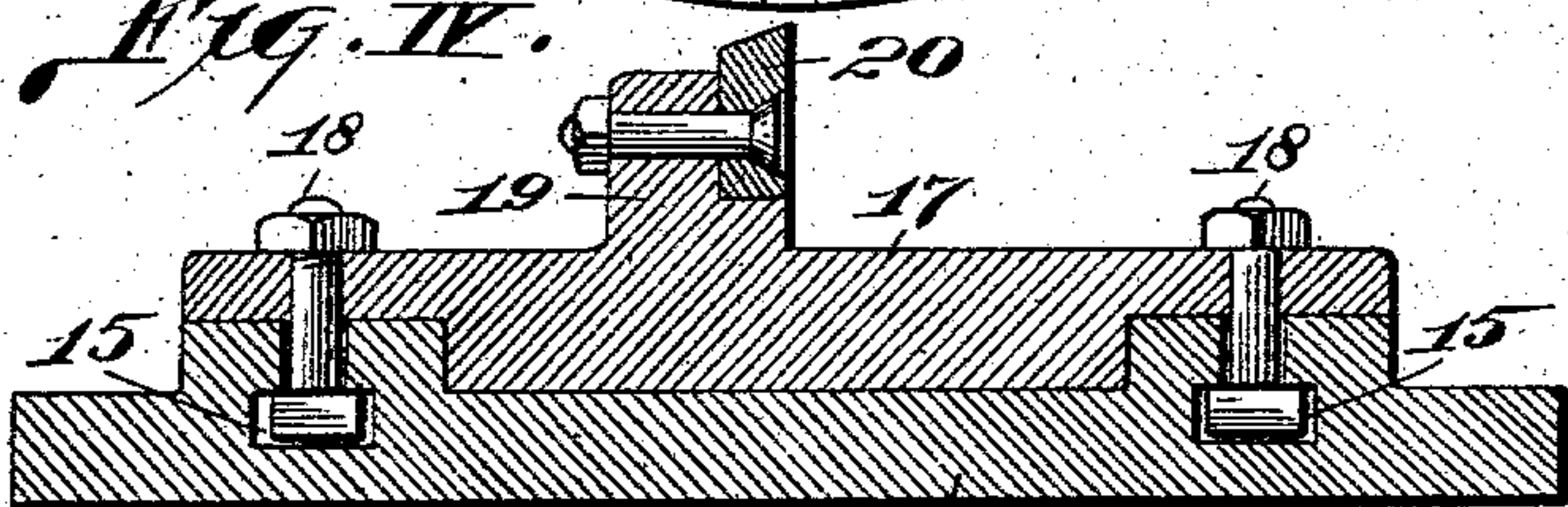
*Fig. II.*



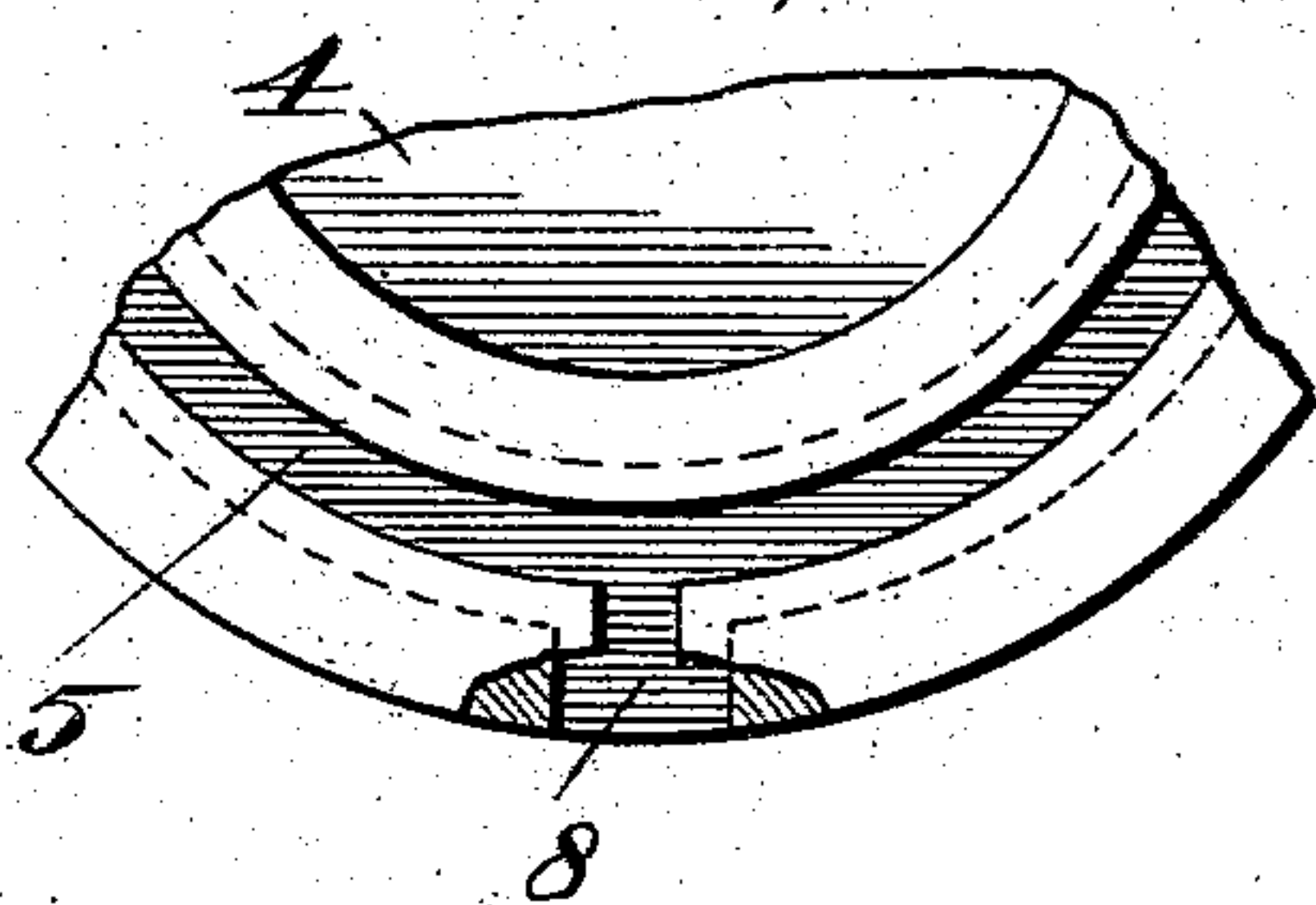
*Fig. III.*



*Fig. IV.*



*Fig. V.*



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# UNITED STATES PATENT OFFICE.

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## COMBINED SPLIT AND CROSSCUT SHEARS.

SPECIFICATION forming part of Letters Patent No. 740,763, dated October 6, 1903.

Application filed June 15, 1903. Serial No. 161,462. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK G. KOEHLER, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in a Combined Split and Cross-cut Shears, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming  
10 part of this specification.

My invention relates to a machine for splitting sheets of metal or other materials at any desired angle, or, if desired, it may be adjusted to cut the sheet crosswise of its length, and this is accomplished by the use of a single pair of blades which can be easily and quickly adjusted to cut any angle desired.

My invention consists in features of novelty hereinafter fully described, and pointed  
20 out in the claims.

Figure I is a front elevation of my machine. Fig. II is a side view part in section. Fig. III is a bottom view of the upper cutter-head, part in section. Fig. IV is a vertical section  
25 taken on line IV IV, Fig. III. Fig. V is a detail view of the lower head with the blade and its supporting-plate removed.

Referring to the drawings, 1 represents a frame having a lower arm 2 and an upper  
30 arm 3. To the lower arm is bolted a stationary cutter-head 4, in the upper face of which is an annular dovetail groove 5. Resting upon the circular part of the head 4 is a disk 6, that is held to the head by means of bolt 7, 35 the heads of which fit in the dovetail groove 5 and which are introduced into the groove through a notch 8, formed in one side of the head 4 and extending from the groove 5 to the periphery of the head, as shown in Fig.  
40 V. The disk 6 is provided with a rib 9, to which is bolted the lower cutting-blade 10.

The arm 3 is provided with guides 11, between which fit the slide 12 of the upper cut-

ter-head 13. The slide 12 is adapted to move vertically between the guides 11 and is moved 45 by means of an eccentric 14 or by other suitable means. Formed in the lower face of the head 13 is an annular dovetail groove 15, corresponding to the groove 5 of the lower head 4 and which is provided with a notch 16, corresponding to the notch 8 of the head 4. 50

17 represents a disk connected to the head 13 by means of bolts 18, the heads of which fit in the groove 15. The under side of the disk 17 is provided with a rib 19, to which 55 the upper blade 20 is secured.

In the operation of the machine the blades 10 and 20 are set at any desired angle by adjusting the disks 6 and 17, the heads of the connecting-bolts sliding in the grooves 5 and 60 15 as the disks are adjusted. When the disks have been adjusted to the desired angle, the bolts are tightened and the disks held to their adjustment. It will thus be observed that the machine can be used to cut a sheet 65 at any desired angle between a longitudinal split and a transverse one.

I claim as my invention—

1. In a machine of the class described, the combination of a pair of heads having annu- 70 lar dovetail grooves, blade-carrying disks fitting against the heads, and connecting-bolts securing the disks to the heads and which fit in said annular grooves, substantially as set forth. 75

2. In a machine of the class described, the combination of a pair of cutter-heads, a pair of blade-carrying disks fitting against the heads, and a slot-and-bolt connection between the heads and the disks whereby the latter 80 can be adjusted to change the angle of the blades, substantially as set forth.

FRANK G. KOEHLER.

In presence of—

E. S. KNIGHT,  
GEO. H. KNIGHT.