

No. 777,081.

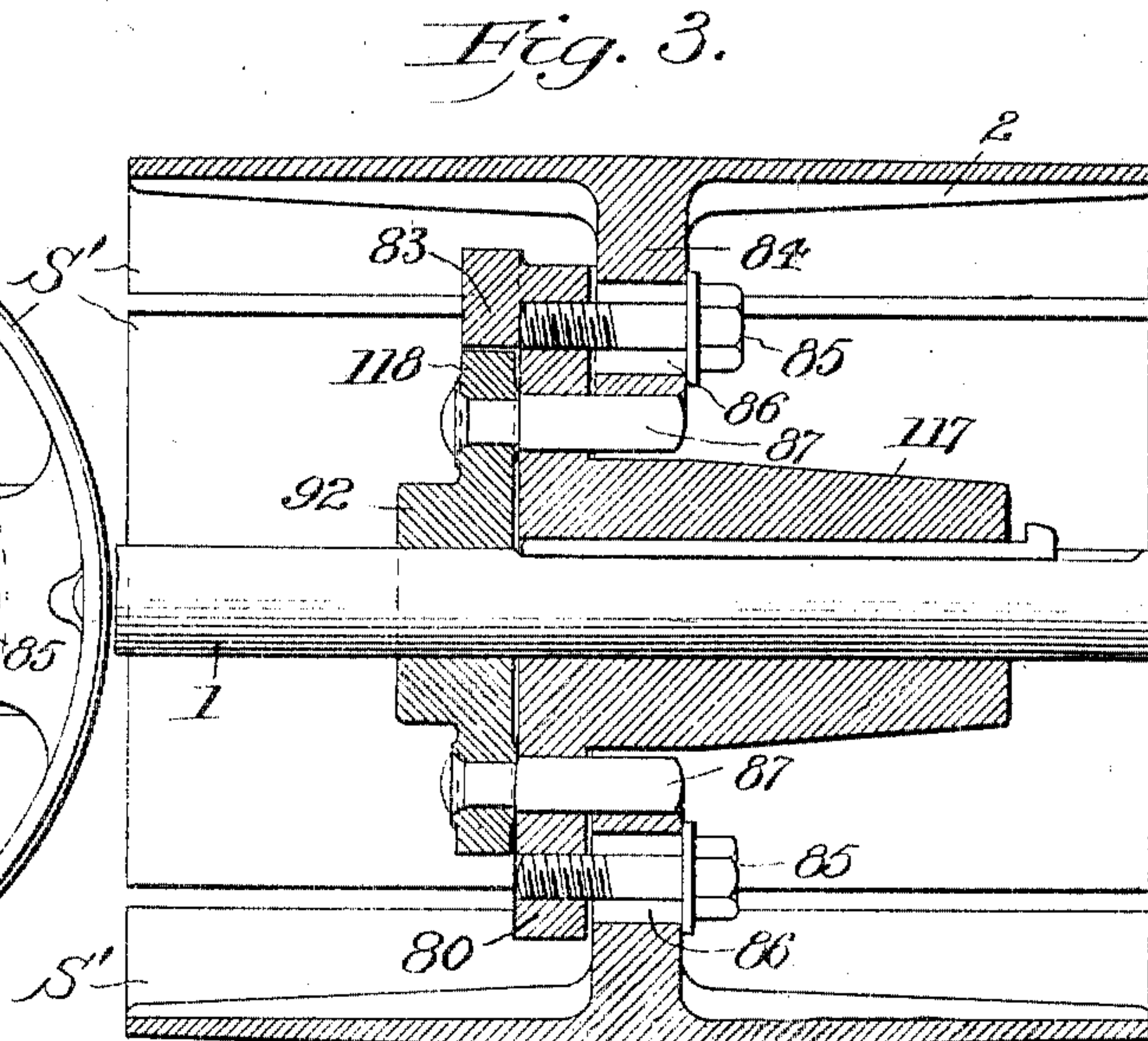
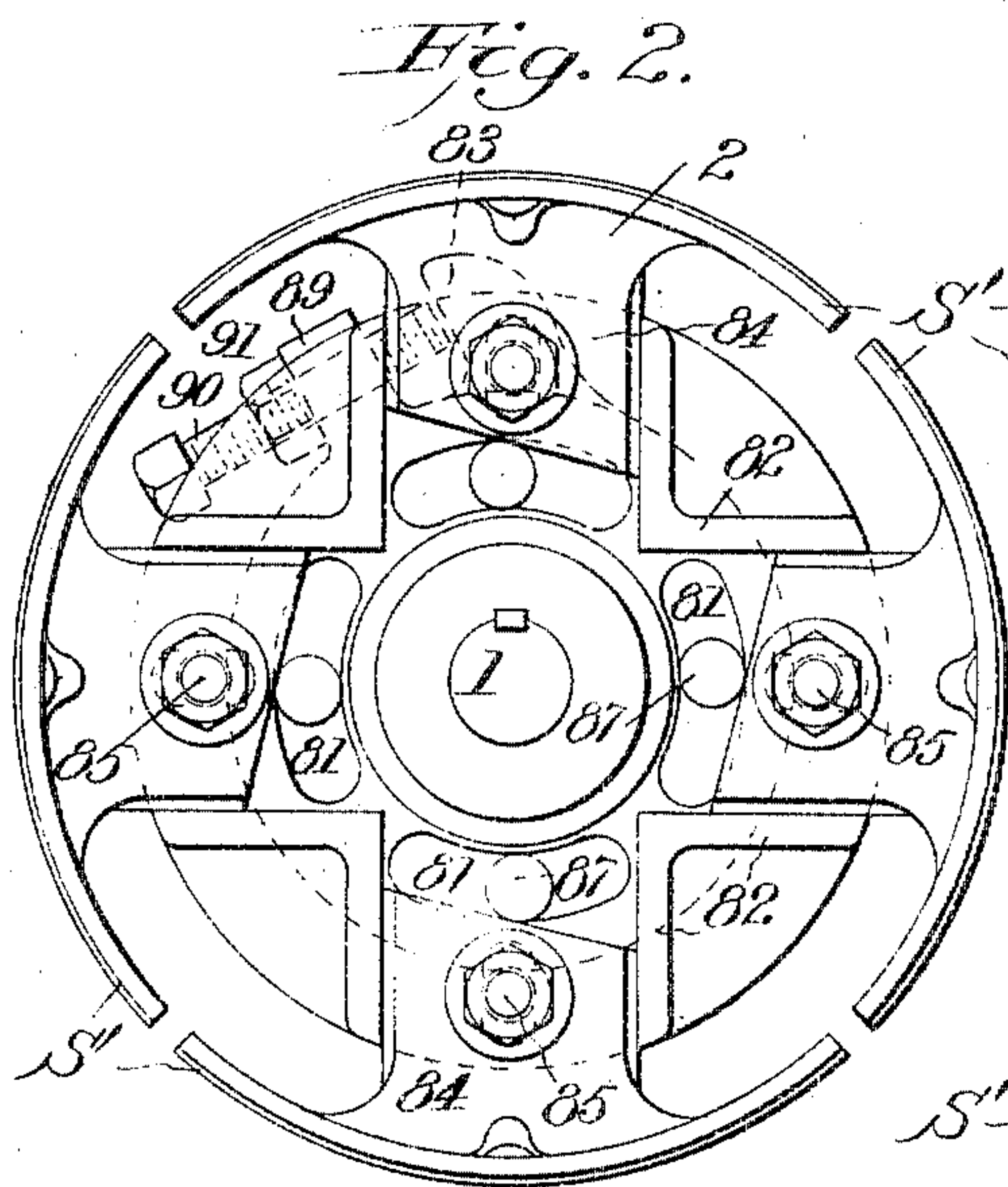
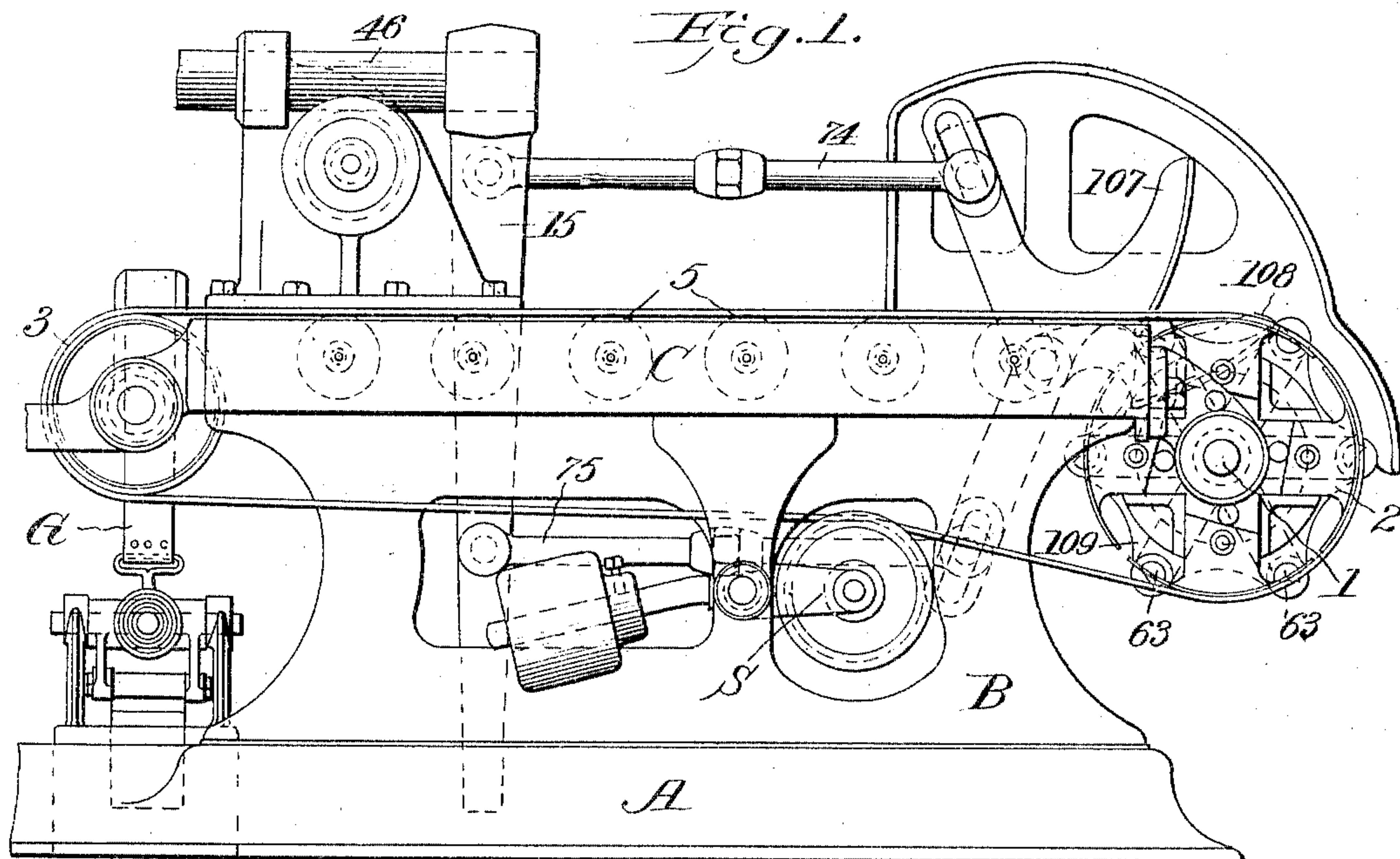
PATENTED DEC. 13, 1904.

W. R. CUNNINGHAM.

MEASURING DRUM FOR CLAY WORKING MACHINERY.

APPLICATION FILED JUNE 4, 1904.

NO MODEL.



WITNESSES:

C. M. Walker.
C. W. Fowler

INVENTOR

William R. Cunningham
BY
T. J. Walter Fowler
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM R. CUNNINGHAM, OF BUCYRUS, OHIO, ASSIGNOR TO THE
AMERICAN CLAY WORKING MACHINERY COMPANY, OF BUCYRUS,
OHIO, A CORPORATION OF OHIO.

MEASURING-DRUM FOR CLAY-WORKING MACHINERY.

SPECIFICATION forming part of Letters Patent No. 777,081, dated December 13, 1904.

Application filed June 4, 1904. Serial No. 211,159. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. CUNNINGHAM, a citizen of the United States, residing at Bucyrus, in the county of Crawford and State of Ohio, have invented new and useful Improvements in Measuring-Drums for Clay-Working Machinery, of which the following is a specification.

This invention relates to certain new and useful improvements in brick and tile cutting machines designed for cutting a bar or bars of clay into uniform thicknesses or lengths as the same issues from the die of the brick-machine.

The present improvements are related particularly to a means for supplying the clay to the cutting appliances in measured quantities, and in machines of this class it is necessary to vary the diameter of the measuring-drum over which the measuring-belt passes to suit the amount of clay that is to be severed into the several different thicknesses or lengths.

My invention consists of the parts and the constructions and combinations of parts constituting the improved measuring-drum, which I will hereinafter describe and claim.

In the accompanying drawings, forming part of this specification, in which similar reference characters indicate like parts, Figure 1 is a side elevation of the measuring-table end of a brick and tile cutting machine. Fig. 2 is an enlarged end view of the measuring-drum. Fig. 3 is a longitudinal sectional view of the drum.

In a companion application filed by me of even date herewith I have fully shown and described an automatic brick and tile cutting machine which is made of three essential divisions—namely, the measuring-table section, the carriage and cutting section, and the separating or off-bearing table-section. It is with such a machine that the measuring-drum of the present application is particularly related, and said drum is both shown and described in said other application in connection with the several parts to which it is intimately related. In the present drawings I illustrate only so much of the measuring-table

section of the machine as will be necessary to make my invention understood, for it is apparent that the salient feature of the invention—namely the measuring-drum—is capable of use with other and different forms of machines than the one disclosed in my other application. I therefore do not limit the present invention to any particular construction of machine.

In the said drawings, A represents the bed-plate, B the pedestal, and C the superstructure of the measuring-table of a brick and tile cutting machine. In this table are mounted rollers 5, and in suitable hangers at the ends of the table are mounted the drums 2 and 3, the former of which is known as the “measuring-drum” and constitutes the essential part of my present invention. Around these drums pass the measuring-belt, upon which the bar of clay is received from the die (not shown) of the usual brick-machine. The drum 2 is mounted on a shaft 1, journaled in the aforesaid hangers, and said drum includes in its preferred construction a driving-hub 117, which is keyed to the shaft 1 and is formed rigid with a flange 80, in which are formed a number—say four—of curved slots or elongated holes 81, which are struck and are concentric with the center of the shaft. On the face of the flange 80 are formed by the angular flanges 82 four radial guideways, and from the periphery of the flange extends an inclined lug 83, the purpose of which I will hereinafter describe.

The rim of the drum is divided to form the segments S', each of which is provided or formed with a centrally-disposed flange 84 of such shape and size that it slidably fits one of the guideways in the flange 82, said flanges 84 being held in appropriate position by means of the bolts 85, passing through elongated holes 86, formed in said flanges to permit the segments to be moved in or out to decrease or increase the diameter of the drum.

Loose upon the shaft 1 is a hub 92, having a flange 118, which abuts against the flange 80, said flange 118 having fixed to it by riveting or otherwise the pins or bolts 87, which

extend through the curved slots 81 and bear against the inclined or cam-like inner ends of the guided flanges 84 of the drum-segments. On the outer periphery of the flange 118 is a lug or projection 89, having a threaded hole to adjustably receive the screw-bolt 90, which has a lock-nut 91, as shown. From this arrangement it will be seen that the screw-bolt 90 affords means for adjusting the segmental rim of the drum either in or out at will by simply loosening the bolts 85 and screwing up or unscrewing the adjustable bolt, thereby turning the loose flange 118 on the shaft and relative to the fixed flange 80 and causing the pins 87 to ride along the inclined inner ends of the flanges 84. After the drum is adjusted to the desired size the segments are secured firmly by the bolts 85 and the adjustable screw-bolt is locked by the nut 91.

On the shaft 1 is fixed a tappet-wheel 109, having tappets 63 63, adapted to alternately engage cam-rockers 107 108, from the arms of which extend connecting-rods 74 75, which attach to wrist-pins on an arm 15, fixed to the end of a reciprocating shaft 46, which carries the carriage and cutting attachments of the machine, as set forth in detail in my said other application and which other application also discloses in detail the governor G and measuring-belt tightener S, and which forms no essential part of the present invention.

In operation as the bar of clay issues from the die of the brick-machine it is received on the measuring-belt and drives the same, which in turn revolves the shaft 1 and the tappet-wheel and through suitable connections reciprocates the carriage (not shown) which carries the cutting appliances, the parts being so timed that the measuring-drum measures out sufficient clay to cut the required amount of clay during the time required for each set of wires to perform their work.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a brick and tile cutting machine, the combination of a measuring-table, a belt, a shaft, and a drum thereon and around which

the belt passes said drum comprising a hub rigid on the shaft, a rim portion divided into segments, a disk loose on the shaft, projections carried by the loose disk and engaging said segments, a lug projecting from the loose disk, and a screw-bolt threaded in said lug and bearing against a fixed part of the hub whereby the segments are adjusted to vary the diameter of the drum.

2. A measuring-drum for brick and tile cutting machines said drum comprising a fixed hub having a flange provided with radial guideways and curved slots; a rim divided into sections each of which includes a segment and a flange said flange fitting one of said guideways, and having an inclined inner surface; and a flange rotatable relative to the hub and provided with lateral projections said projections passing through said slots and engaging the inclined inner surfaces of the segment-flanges whereby the segments may be moved radially to increase or decrease the diameter of the drum.

3. A measuring-drum for brick and tile cutting machines said drum consisting of a fixed hub having a flange with radial guideways and curved slots; a rim divided into sections and each section including a segment and an inwardly-projecting flange which slidably fits one of the guideways, said flange being inclined at its inner end; bolts securing the hub-flange to the segment-flanges and passing through slots in the latter; a disk rotatable relative to the hub and having pins passing through the said curved slots and bearing against the inclined ends of the segment-flanges, to adjust the segments radially; and means whereby the loose flange may be axially turned said means including a lug on the fixed flange and an adjusting-screw on the movable flange and adapted to engage the fixed lug.

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

WILLIAM R. CUNNINGHAM.

Witnesses:

J. S. DE TASHMUETT,

P. O. PENOTT.