

D. B. DONNELLY.
CORE FOR PAPER ROLLS.
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973,923.

Patented Oct. 25, 1910.

Fig. 1.

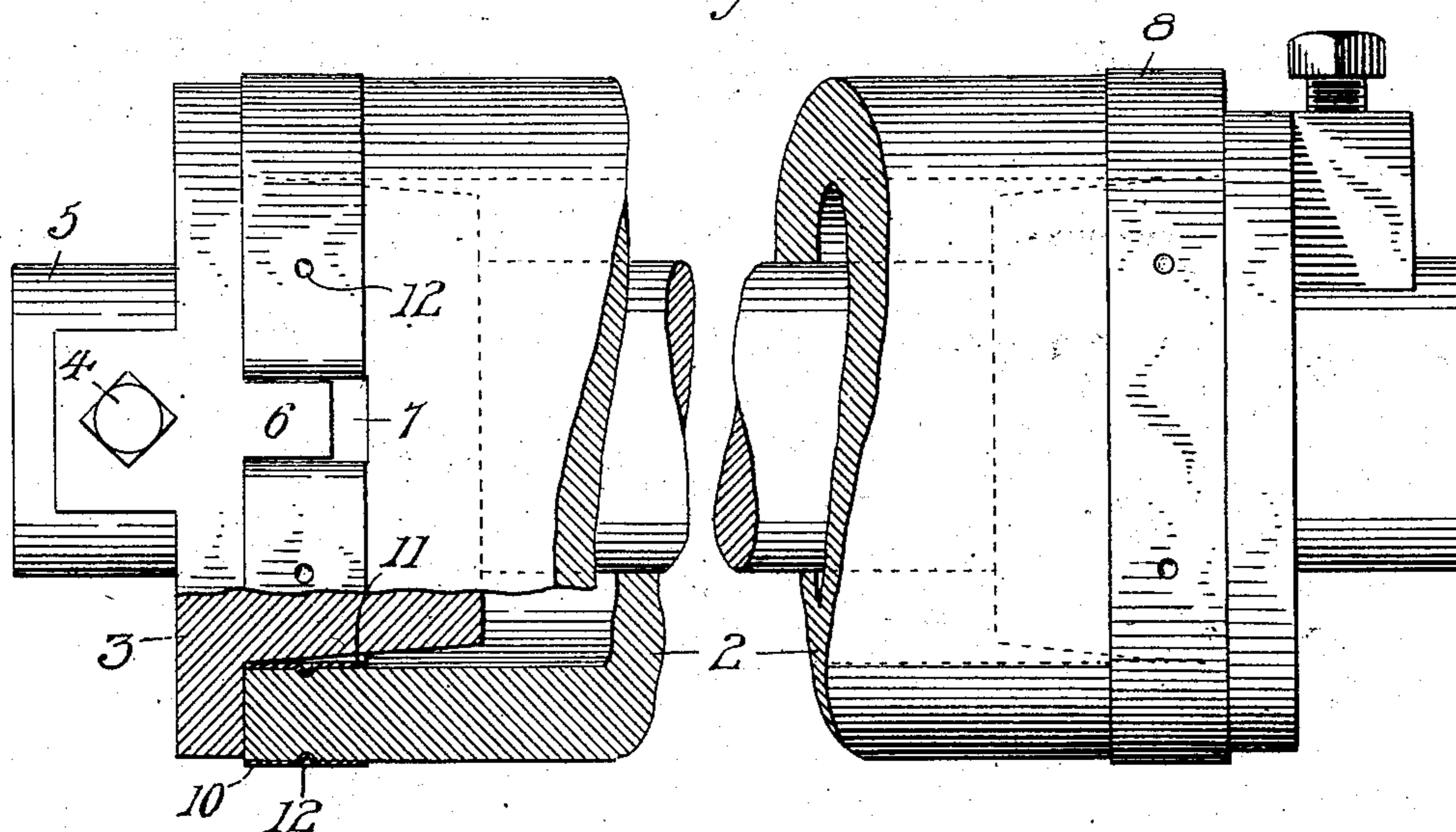


Fig. 2.

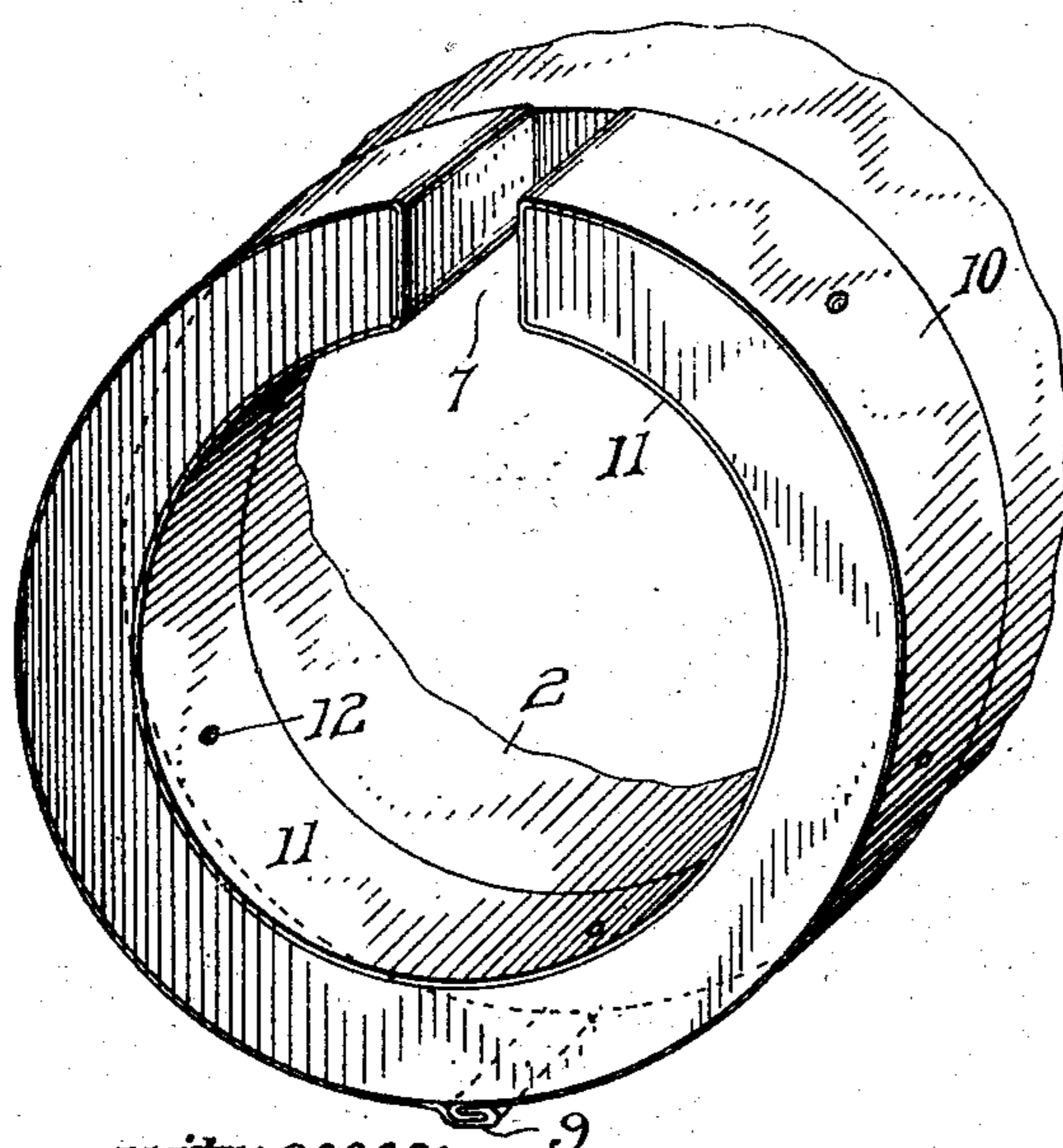
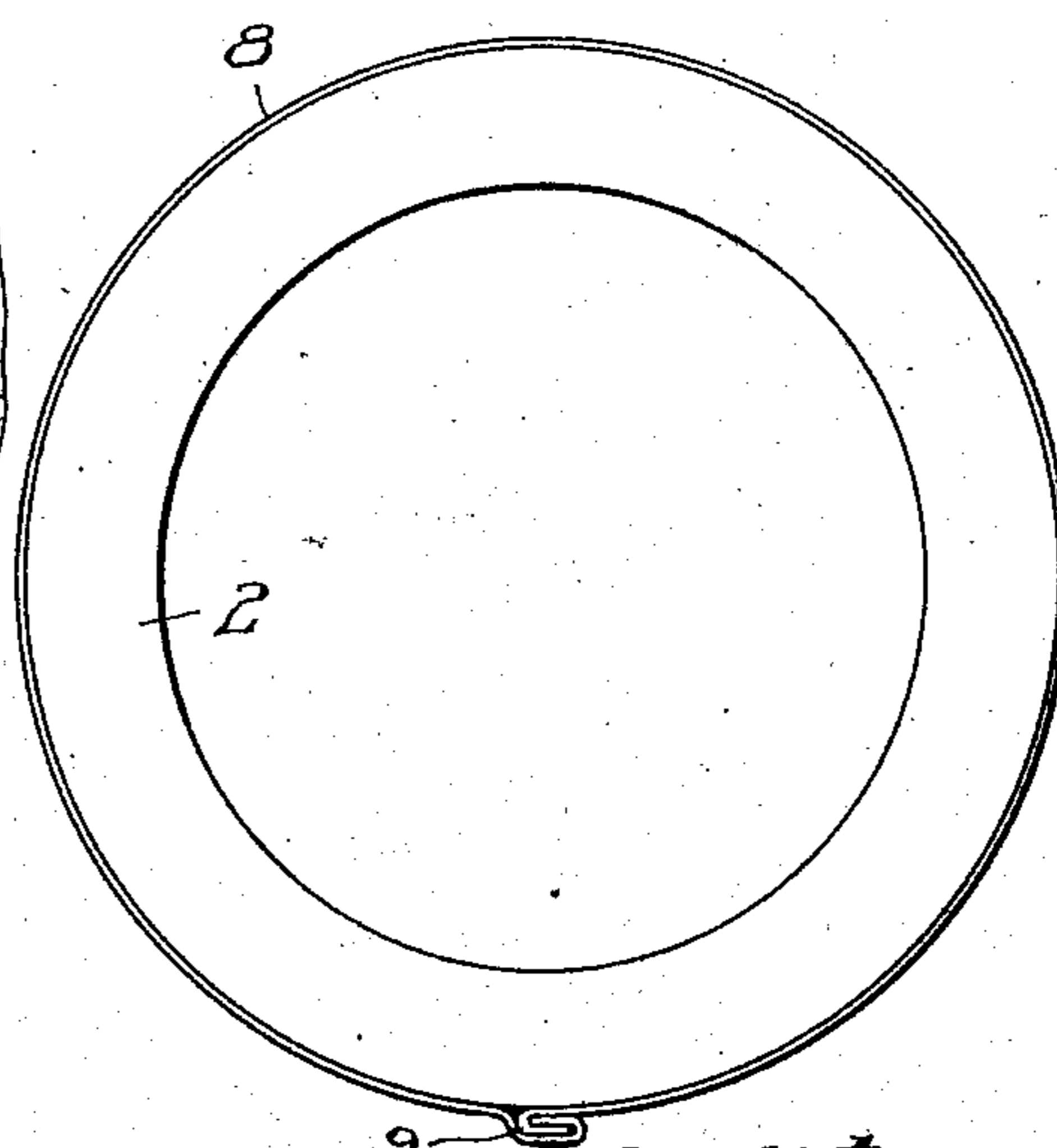


Fig. 3.



witnesses:
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UNITED STATES PATENT OFFICE.

DANIEL B. DONNELLY, OF PITTSBURG, PENNSYLVANIA.

CORE FOR PAPER-ROLLS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, DANIEL B. DONNELLY, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have
5 invented certain new and useful Improvements in Cores for Paper-Rolls, of which the following is a specification.

This invention relates to cores for paper rolls, especially rolls used in the production
10 of newspapers, and has particular reference to composition cores, or cores made of pulp, as distinguished from those formed of sections of iron pipe. The roll is mounted on the feed spindle of the printing press, being
15 secured by means of centering cones wedged into the core extremities, and composition cores do not long withstand the expanding tendency and are comparatively short lived. Furthermore, cores of this character provided with a slot for a locking-pin or lug
20 carried by one of the cones do not long withstand the wear, the slot breaking or tearing out and becoming inefficient.

The object of the present invention is to
25 overcome this difficulty by so reinforcing the core extremities as to prevent expansion, with the reinforcement protecting the slot therein.

The invention is preferably embodied in
30 a single strip or band of metal which, in the case of the unslotted core end, is extended around the extremity thereof, while at the slotted end both the inner and outer surfaces are protected.

In the accompanying drawings, Figure 1
35 is a broken elevation of a roll core and its mounting constructed in accordance with the invention. Fig. 2 is a detail view of the slotted extremity of a core, and Fig. 3 is a
40 similar view of an unslotted extremity thereof.

Referring to the drawings, 2 designates
a composition or pulp core which is preferably formed of a substantially rigid material which, however, is capable of appreciable and destructive expansion. The expanding tendency is at the ends, caused by
45 the wedging of centering cones 3, which may be secured by set screws 4 to spindle 5 of

the press. The hold of the cones is usually 50 augmented by a lug or projection 6 on cone 3 entering in slot 7 in the core extremity.

The present invention provides for reinforcing the core extremities in such manner as to resist the expanding tendency. For
55 the unslotted end, a band 8 encircles the outer surface of the extremity, with its ends interlocked as indicated at 9. For the slotted end, a single band of metal is used which extends around the inner surface, as
60 indicated at 11, outwardly through slot 7, and around the outer surface, as seen at 10, with the extremities of the band interlocked as in the construction first described. As it is usual to slot only one end of the core,
65 said end will be reinforced in the manner just described, and the opposite or unslotted end with the single external band. And the latter may be employed at both ends where no locking slot is provided. The bands may
70 be upset or indented at intervals at 12 to hold them fixed on the core.

The improvement provides for so reinforcing the core extremities as to prevent undue expansion, so that a paper or pulp
75 core thus equipped may remain in service a long time, it being the practice in this art to reuse cores as long as they are serviceable. And with the slotted core extremities reinforced as shown the surfaces are protected
80 and the walls of the slot cannot be broken out or torn as heretofore. The heavy roll of paper wound on the core causes the great strain on the latter and the holding cones, and at the same time this body of
85 paper tends to hold the core from expanding so that there can be no serious spreading of the reinforced slotted end during the time of greatest strain, the latter decreasing as the roll diminishes in size.

I claim:—

1. A tubular core for a paper roll having its end slotted longitudinally to receive a chuck projection, in combination with a reinforcement for the slotted end consisting
95 of a sheet metal band corresponding in width to the depth of the slot, the band curved to fit the inner and outer peripheries

of the roll extremity and extending over the side walls of the slot.

2. A tubular core for a paper roll having a pin-receiving slot in an extremity thereof, and a reinforcement for the slotted extremity formed of a single band of metal, said band bent to encircle the inner and outer surfaces of said extremity and extending

through the slot thereof with the ends of the band secured together.

10

In testimony whereof I affix my signature in presence of two witnesses.

DANIEL B. DONNELLY.

Witnesses:

FRANK McC. PAINTER,
J. M. NESBIT.