

No. 712,061.

Patented Oct. 28, 1902.

E. E. HANNA.
CARRYING ROLL.

(Application filed Feb. 6, 1902.)

(No Model.)

Fig. 1.

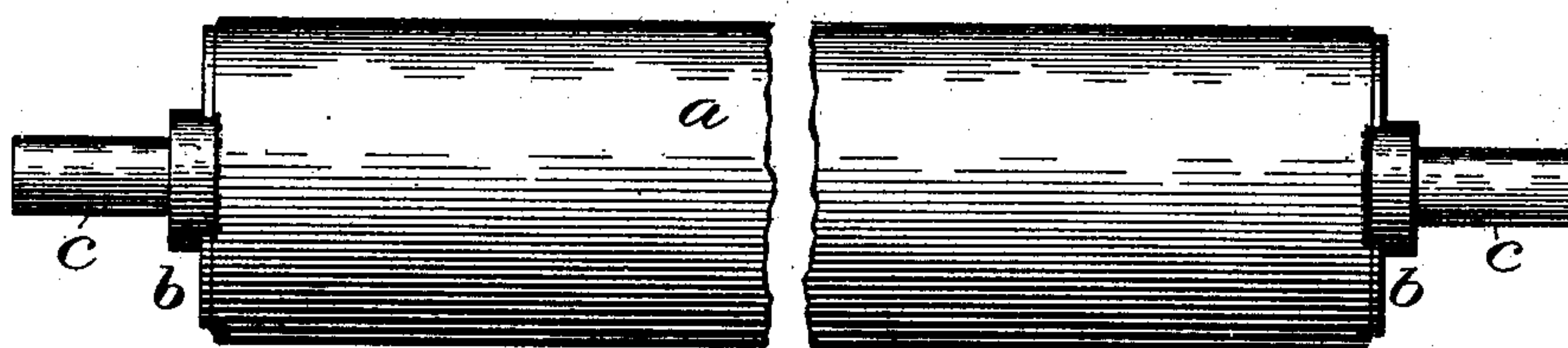


Fig. 2.

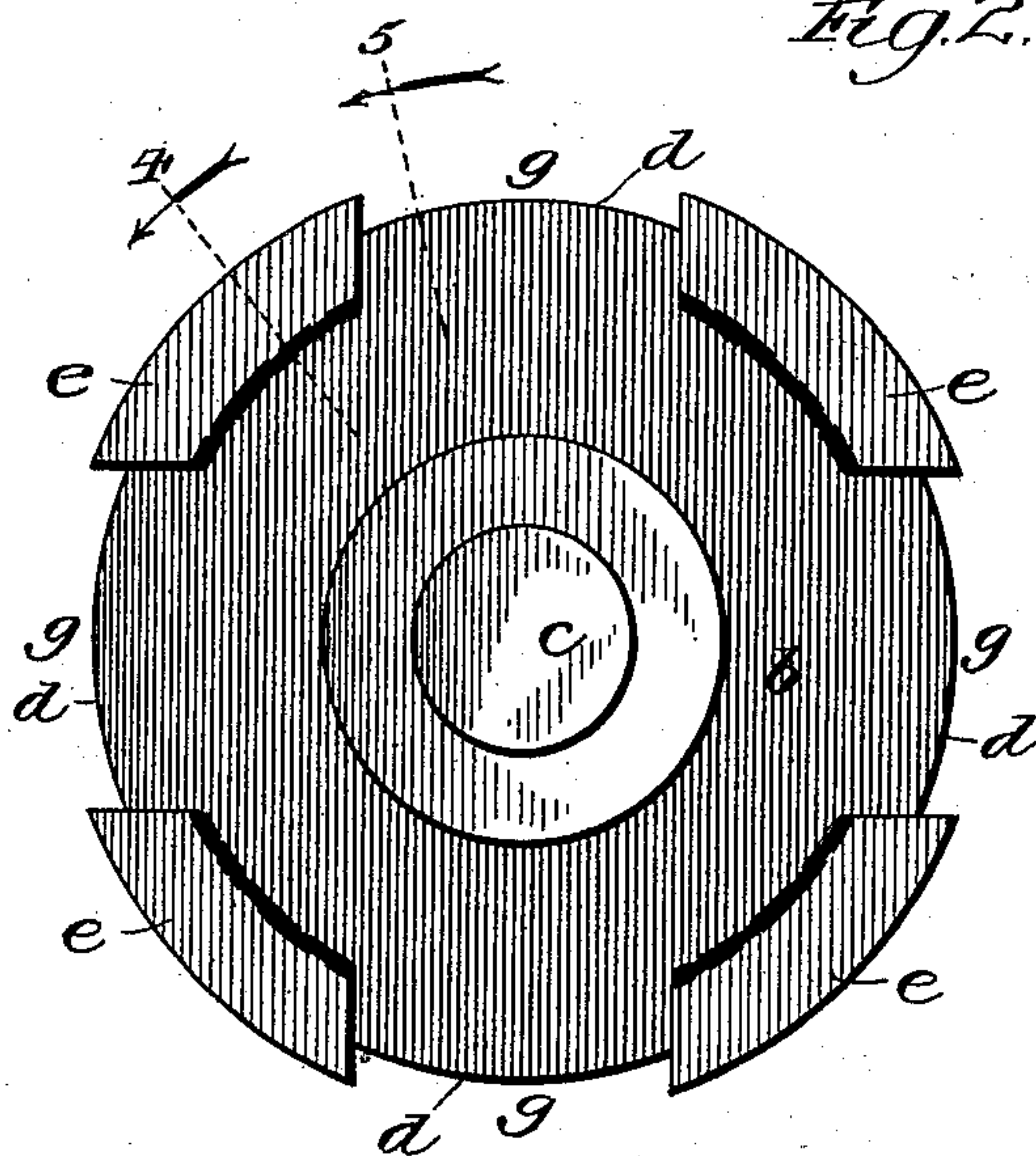


Fig. 3.

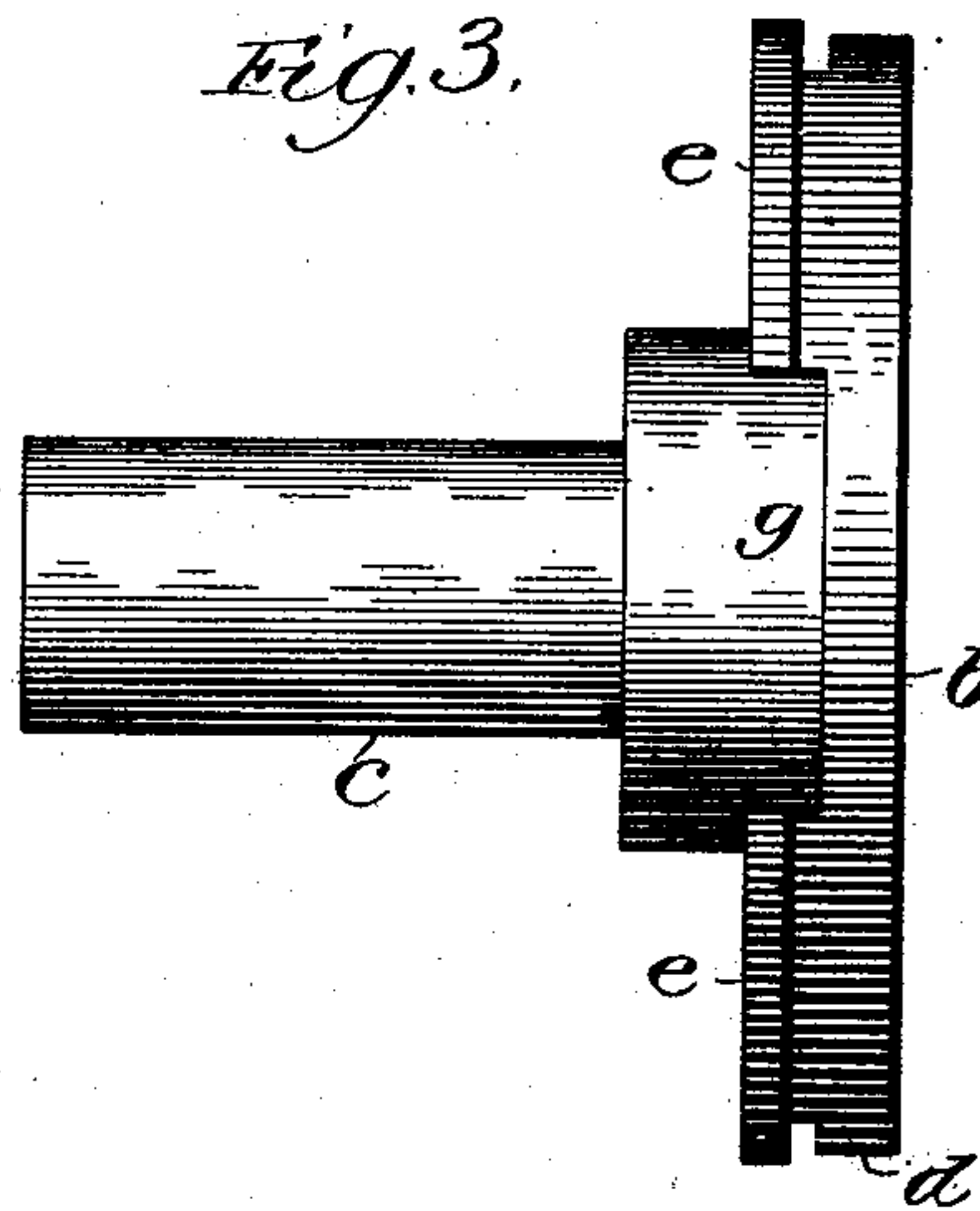


Fig. 4.

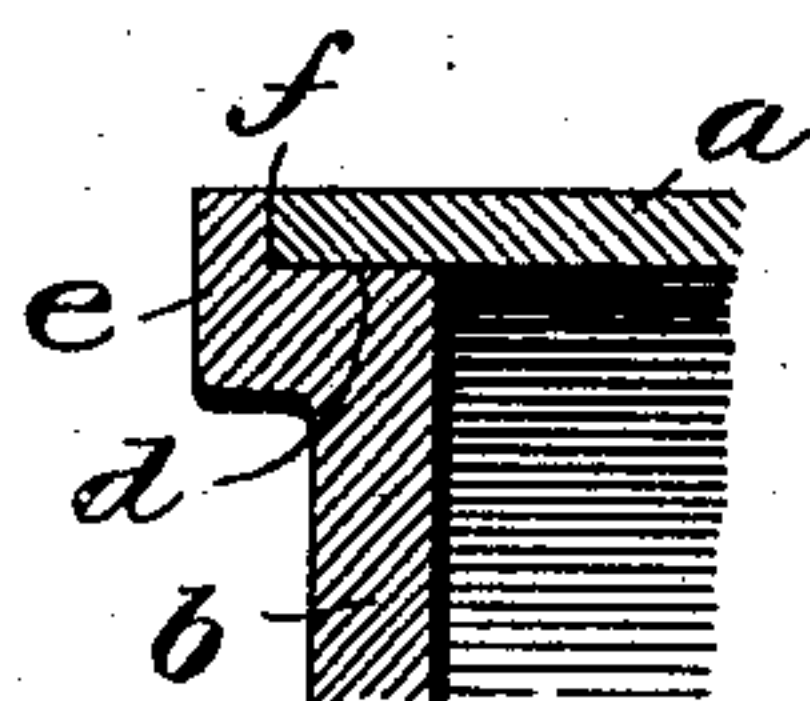
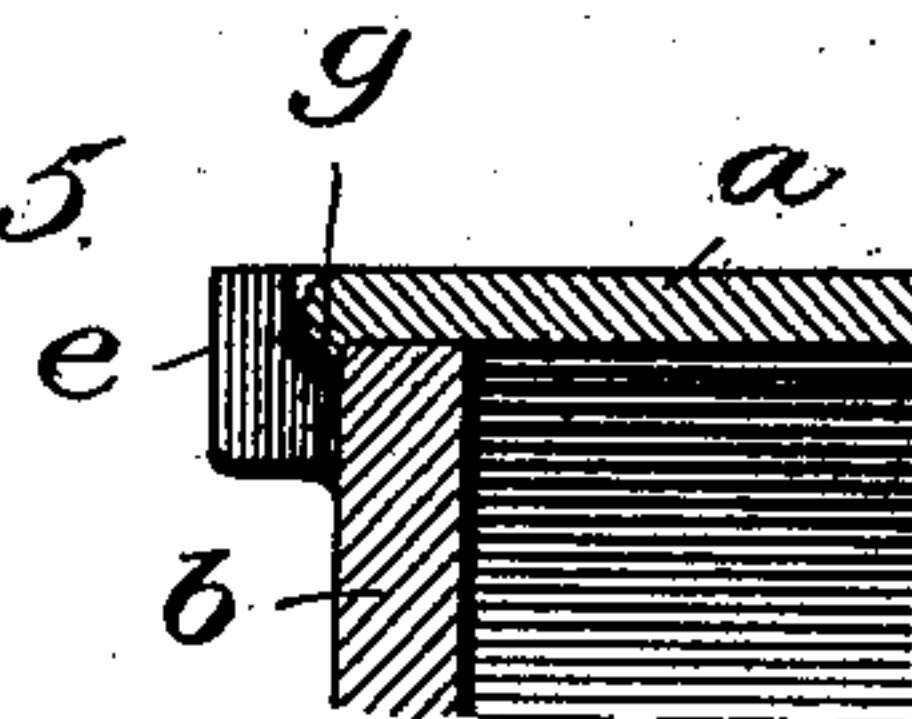


Fig. 5.



Witnesses:

Edw. J. Gaylord.
John Enders Jr.

Inventor:

Elmer E. Hanna,
By Thomas F. Sheridan,
Att'y.

UNITED STATES PATENT OFFICE.

ELMER E. HANNA, OF CHICAGO, ILLINOIS, ASSIGNOR TO ALLIS-CHALMERS COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

CARRYING-ROLL.

SPECIFICATION forming part of Letters Patent No. 712,061, dated October 28, 1902.

Application filed February 6, 1902. Serial No. 92,814. (No model.)

To all whom it may concern:

Be it known that I, ELMER E. HANNA, a citizen of the United States, residing at Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Carrying-Rolls, of which the following is a specification.

This invention relates to rolls which are used particularly in connection with "belt-carriers" for belts for elevators, conveyers, and similar classes of machinery and more especially to the construction of the roll, all of which will more fully hereinafter appear.

The principal object of the invention is to provide a simple, economical, and efficient carrying-roll.

A further object of the invention is to provide a roll formed of several parts, so as to have the efficiency of an integral structure and obtain the greatest economy of manufacture and repair.

Further objects of the invention will appear from an inspection of the drawings and the following description and claims.

The invention consists in the features, combinations, and details of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a broken elevation of a roll constructed in accordance with these improvements; Fig. 2, an enlarged end view of one of the end pieces looking at it from the outside; Fig. 3, a side view of the mechanism shown in Fig. 2; Fig. 4, a sectional detail taken on line 4 of Fig. 2, and Fig. 5 a sectional detail taken on line 5 of Fig. 2.

In the art to which this invention relates it has long been desirable to provide a simple, economical, and efficient carrying-roll for elevator conveyer-belts, one that will have all the strength and efficiency of integral structures and yet be more economical to manufacture and repair. To this end this invention is particularly designed.

In constructing a roll in accordance with these improvements a body portion *a* is provided, tubular in cross-section and preferably formed of wrought metal, such as wrought-iron tubing. The body portion, as above stated, is formed of a cylinder or tube, and in order to sustain it in position and provide

it with journals flanged end portions *b* are provided having journals *c* extending out therefrom. These flanged end portions are preferably formed of cast-steel or malleable iron turned down at *d* to fit the inner diameter of the body portion and are also provided with a plurality of lugs *e*, which form abutting shoulders against which the ends of the body portion rest, as at *f*, so as to properly position the parts. These lugs also provide a plurality of spaces *g*, where the free portion of the ends of the body portion may be battered or hammered down, so as to lock the parts firmly and rigidly together. The body portion being made of wrought-iron pipe needs no operation performed thereon other than the simple "squaring" of the ends thereof, and the only work to be done on the flanged end pieces is to turn them off at *d* to snugly fit the interior of the body and at *c* to form the journals, dispensing with all securing bolts, rivets, and keys, all of which will be readily understood and appreciated by those skilled in the art.

I claim—

1. In a roll, the combination of a tubular body portion, and independent flanged end portions rigidly secured thereto, each having an integral journal portion extending outward axially of the tubular body portion, substantially as described.

2. In a roll, the combination of a tubular body portion formed of wrought metal, and independent flanged end portions formed of cast metal rigidly secured thereto, and each having a journal portion in fixed relation thereto extending outward axially of the tubular body portion, substantially as described.

3. In a roll, the combination of a tubular body portion formed of wrought metal, and independent flanged end portions formed of cast metal turned down to fit the inner diameter of the body to which it is secured, and having integral journal portions extending outward axially of the tubular body portion, substantially as described.

4. In a roll, the combination of a tubular wrought-metal body portion, independent cast-metal flanged end and journal portions, and a plurality of lugs on each end portion to position the body portion and between

which the body portion is hammered or bent down to secure the parts together, substantially as described.

5 In a roll, the combination of a wrought-metal tubular body portion, cast malleable-metal independent flanged end and journal portions turned off to fit the interior of the body portion, and a plurality of abutting lugs

on each of such end portions against which the ends of the body rest and between which it is bent down to secure the parts rigidly together, substantially as described.

ELMER E. HANNA.

Witnesses:

THOMAS F. SHERIDAN,
HARRY IRWIN CROMER.