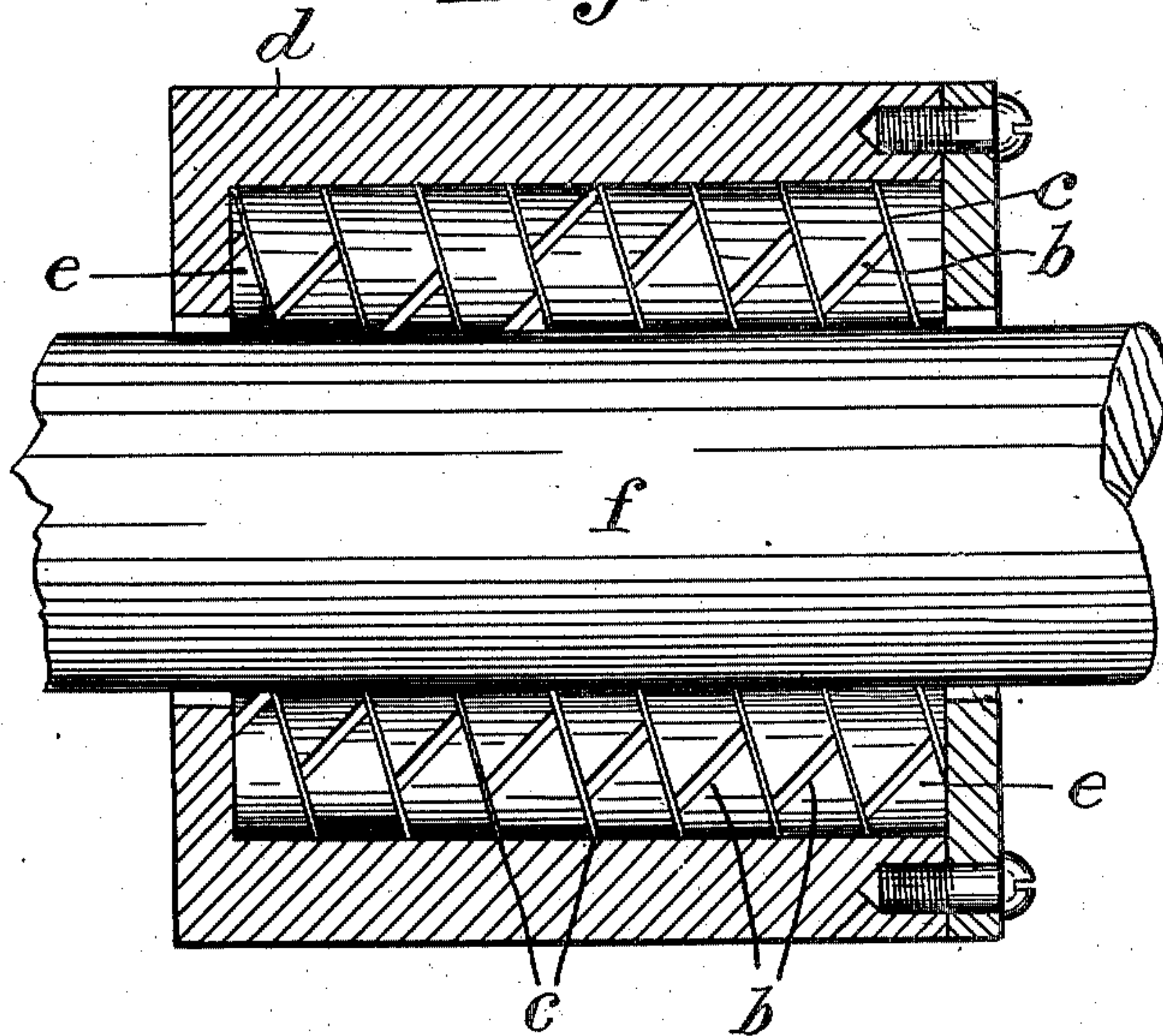


C. S. LOCKWOOD.  
 STRIP FOR MAKING ANTIFRICTION BEARING ROLLS.  
 APPLICATION FILED OCT. 18, 1909.

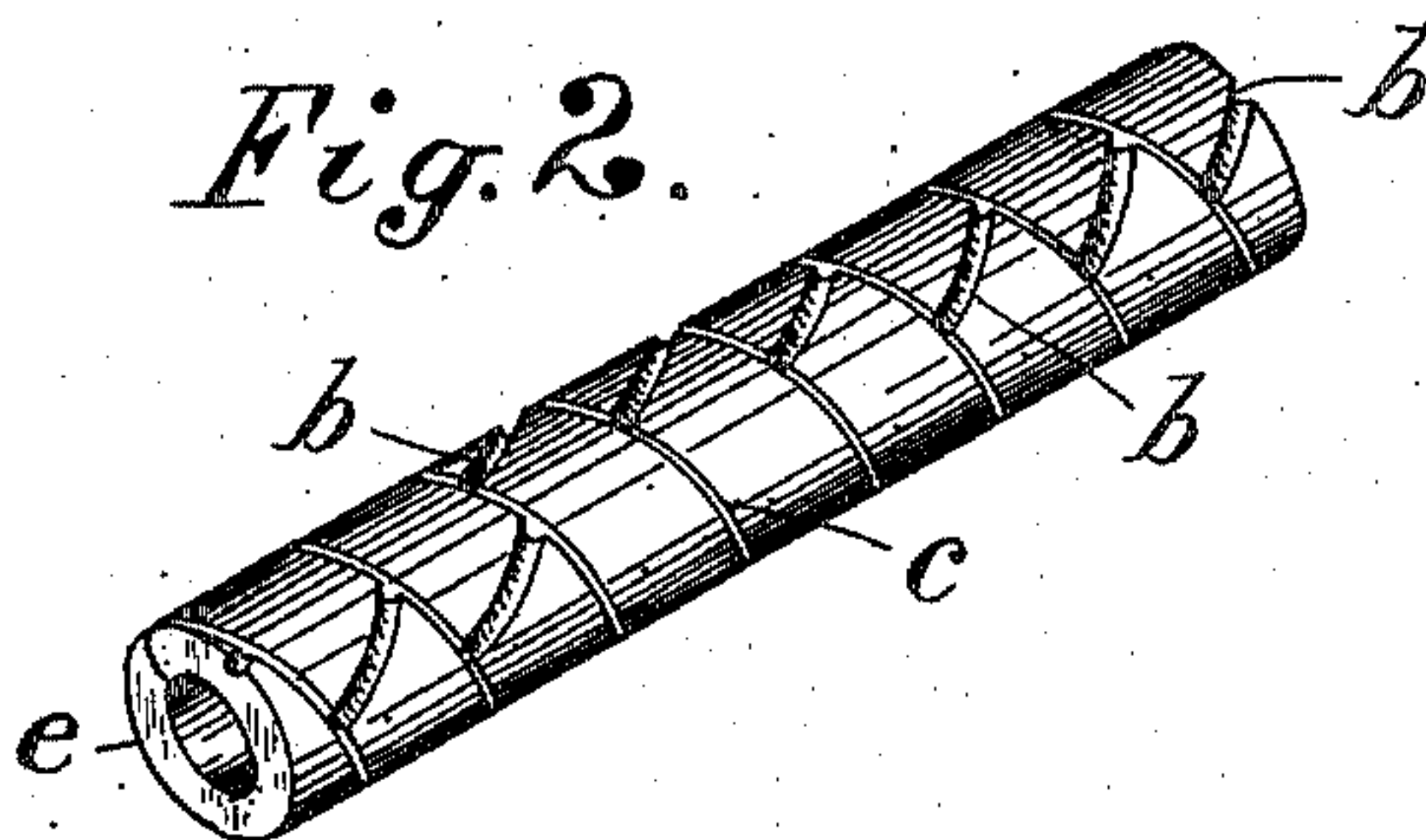
966,844.

Patented Aug. 9, 1910.

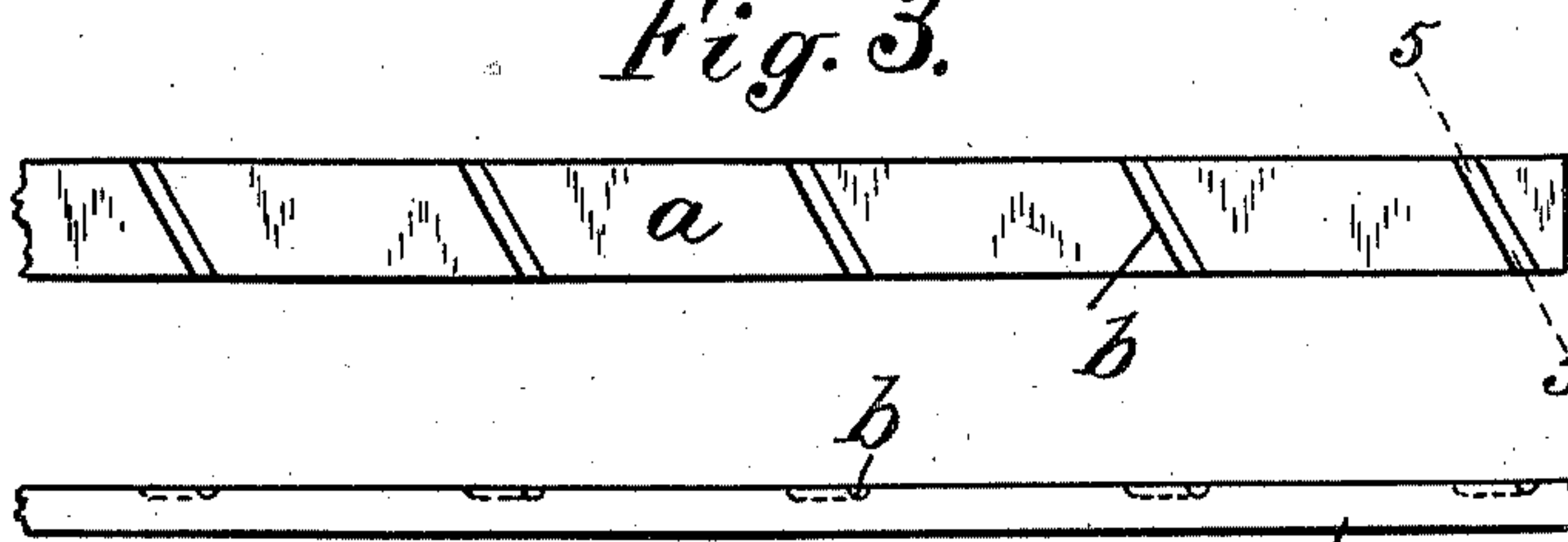
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Fig. 5.*



*Fig. 4.*

Witnesses:  
 L. Lew.  
 J. Walter Greenbaum

Inventor.  
 Charles S. Lockwood, per  
 Thomas S. Crane, Atty



# UNITED STATES PATENT OFFICE.

CHARLES S. LOCKWOOD, OF NEWARK, NEW JERSEY, ASSIGNOR TO HYATT ROLLER BEARING COMPANY, OF HARRISON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

STRIP FOR MAKING ANTIFRICTION BEARING-ROLLS.

966,844.

Specification of Letters Patent.

Patented Aug. 9, 1910.

Application filed October 18, 1909. Serial No. 523,284.

*To all whom it may concern:*

Be it known that I, CHARLES S. LOCKWOOD, a citizen of the United States, residing at 289 Market street, Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Strips for Making Antifric-  
tion Bearing-Rolls, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to a strip of particular character adapted for making spirally wound rolls with channels extending across the width of the separate coils.

The invention consists of a flat strip of greater width than thickness having one of its broader sides entirely flat and the opposite side provided with a succession of uniformly spaced transverse notches or grooves.

The object of this construction for the strip is to furnish the roll when finished with channels extended across the surface of the coils to facilitate the distribution of oil over the journal and casing of the roller bearing, as the rolls revolve therein.

The spiral interspace between the successive coils operates to carry the lubricant toward one end of the journal and the notches formed transversely in the strip are readily disposed at an inclination opposite to that of the spiral interspace, and each of such notches thus operates independently to shift the oil toward the other end of the journal. Rolls having such notches in the strip thus promote the distribution of oil in all parts of the journal.

The invention will be understood by reference to the annexed drawing, in which—  
Figure 1 is a longitudinal section of a casing with a set of rolls therein embodying the invention; Fig. 2 is a perspective view of one of the rolls detached from the bearing; Fig. 3 is a plan of the strip for making such a roll; Fig. 4 is an edge view of the same, and Fig. 5 a cross section on line 5—5 in Fig. 3.

A strip having such transverse grooves is readily made in a rolling-mill between suitably shaped rolls, one of the rolls forming one side of the strip flat and the opposite roll having ribs to form the grooves upon the opposite side of the strip.

The flat side of the strip is adapted to lie

upon the mandrel whereon it is wound to form an anti-friction roll, while the notches lie upon the outer side of the strip and in the bearing surface of the roll. This strip when wound upon a mandrel to form an anti-friction roll exhibits channels which extend only across the width of one coil, as it is in practice impossible to so space the grooves upon the strip that the grooves will coincide or form continuous channels when the strip is wound into a roll.

The grooves are shown extended obliquely across the strip, but the angle of the groove to the strip is immaterial and may be varied in making the strip so as to produce the desired effect in shifting the oil longitudinally of the bearing. This device adds nothing material to the cost of construction, while it greatly promotes the uniform lubrication of the bearing.

It has been proposed heretofore to cut a continuous spiral groove obliquely across the coils of a previously wound roll at an inclination opposite to that of the interspace between the coils; but the cutting of such a groove is very expensive and troublesome, whereas the forming of the transverse grooves in the strip before it is wound into coils is effected in the rolling of the strip without any perceptible expense. The coils themselves and their interspace *c* shown in the drawing, have a right hand inclination as the coils are wound right hand, and the grooves or channels *b* are so disposed to the axis of the strip as to give the channels *b* a left hand inclination upon the finished roll, opposite to that of the coils themselves; but if the strip were intended to be used for left hand coils, the grooves *b* would be reversely inclined to the axis of the strip. It is therefore understood that the grooves *b* may be formed upon the strip at any desired inclination, but especially such as will form channels opposed to the interspace between the coils when wound.

I disclaim the forming of a continuous channel upon the surface of a spirally wound roll, as such a channel can only be formed by cutting the metal from the roll after it is wound; whereas the grooves in my strip are formed before it is wound and cannot form a continuous channel upon a cylindrical roll.

I am aware that wires and flat strips have been crimped in various processes of manu-



facture whereby the strip or rod is indented upon one side and a corresponding projection formed upon the other side; but a strip having such projections could not be used in winding a helical roll, as the projections would interfere with the uniform bending of the strip to the surface of the mandrel, and would cause distortions of form in the outer side of the roll. My strip requires one side flat, so that it can be readily conformed to the curvature of the mandrel.

What I claim and desire to secure by Letters Patent is:

1. As a new article of manufacture, a rectangular strip of greater breadth than thickness for making spirally wound rolls, the strip having one of its broader sides flat and the opposite side provided with a succession of transverse notches upon its surface, such strip being adapted to wind with its flat side upon a mandrel, to form spirally

wound rolls with transverse notches upon the surface of the coils.

2. As a new article of manufacture, a rectangular strip of greater breadth than thickness for making spirally wound rolls, the strip having one of its broader sides flat and the opposite side provided with a succession of uniformly spaced transverse notches upon its surface, such strip being adapted to wind with its flat side upon a mandrel, and the notches disposed obliquely to the axis of the strip, to form grooves oblique to the edges of the coils when wound into a cylindrical roll.

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

CHARLES S. LOCKWOOD.

Witnesses:

L. LEE,

THOMAS S. CRANE.