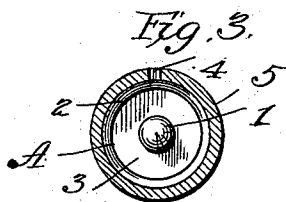
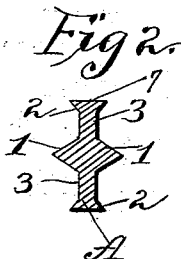
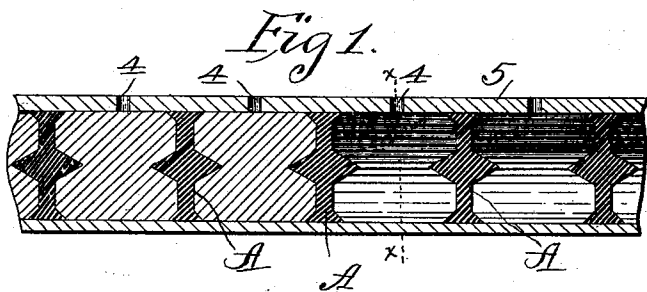


(No Model.)

F. B. TORREY.
PROCESS OF CASTING ROLLERS.

No. 508,785.

Patented Nov. 14, 1893.



Attest
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UNITED STATES PATENT OFFICE.

FRANCIS B. TORREY, OF BATH, MAINE.

PROCESS OF CASTING ROLLERS.

SPECIFICATION forming part of Letters Patent No. 508,785, dated November 14, 1893.

Application filed June 8, 1892. Serial No. 435,975. (No specimens.)

To all whom it may concern:

Be it known that I, FRANCIS B. TORREY, a citizen of the United States of America, residing at Bath, in the county of Sagadahoc and State of Maine, have invented certain new and useful Improvements in Processes of Casting Rollers, of which the following is a specification.

My invention relates to the manufacture of anti-friction rollers, of that class used in the bearings of sheaves and like circular revolving bodies and consists of a special form of apparatus for casting such rollers. These rollers consist of short cylindrical bodies, having the ends formed with an axial stud or hole, and with the edges or corners beveled. These have heretofore been made out of rod of suitable size, by cutting the rod into pieces of the desired length, and finishing the ends by suitable tools. This is an expensive method, and the object sought by me in this invention is mainly to lessen the cost of manufacture. By my apparatus also I have provided a better roller, the cast and chilled surfaces being harder than when finished in the manner heretofore used.

I have illustrated my invention in the accompanying drawings, in which—

Figure 1 represents a series of separating disks, and the manner of their arrangement in matrix of the mold. Fig. 2, shows a section of one of the disks. Fig. 3, is a cross-section on line $x-x$ of Fig. 1.

In the drawings, A represents one of a series of disks which is made of iron or other suitable metal. Its faces are of suitable form to cast the ends of the rollers. These disks have a central conical stud 1, or a hole, a beveled flange 2, and an intermediate plain face 3. These, when the metal is cast against them,

give the proper reverse form to the end of the roller. Both sides of the disk are made alike, and the periphery of the disk is plain, and it is of the same diameter as the roller to be made, and fits snugly in the cylindrical walls of the matrix and by close contact separates it into divisions. A series of these disks is placed in a cylindrical cavity or matrix of a metal mold 5, such cavity being of the diameter required for the rollers. The disks are movable and are set in the cavity, at a distance apart equal to the length required of the roller, and when so arranged, the metal is poured through openings or gates 4, filling the cavities between the disks, and forming a series of the rollers. The disks have peripheries 7, of considerable extent, to give sufficient bearing on the inner surface of the mold, to form the divisional partition and they may be retained in place by frictional contact.

The rollers vary in length for different uses, or different sizes of sheaves, and their length may be varied by simply changing the distance between the disks.

I claim—

A mold for casting chilled rollers comprising a metal body having a cylindrical matrix, a series of disks having on each face a peripheral flange, said disks adjustably arranged within the mold cavity and in frictional contact with the walls of the same, and suitable gates through the mold body between said disks.

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

FRANCIS B. TORREY.

Witnesses:

HENRY E. COOPER,
WALTER P. KEENE.