

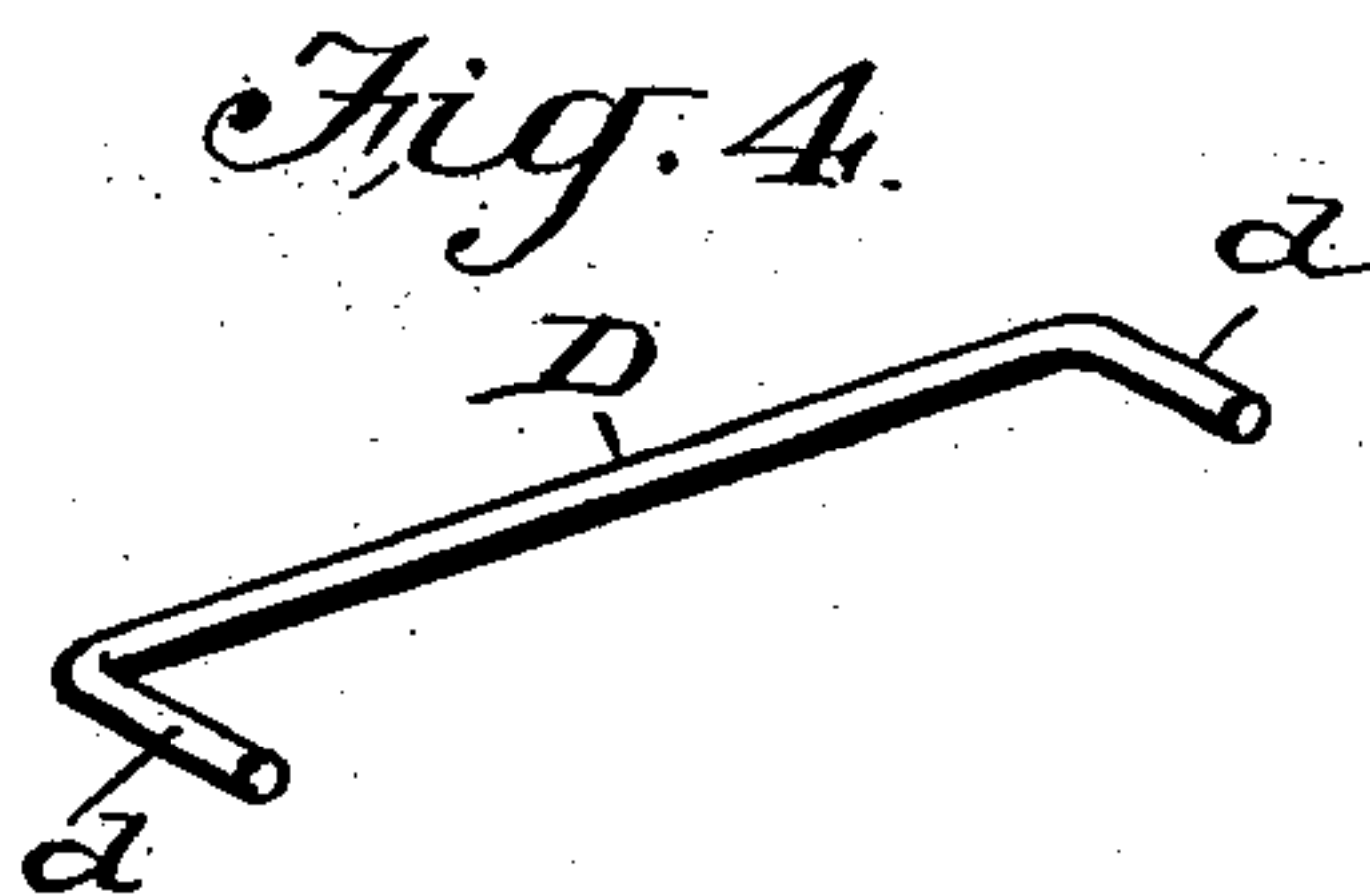
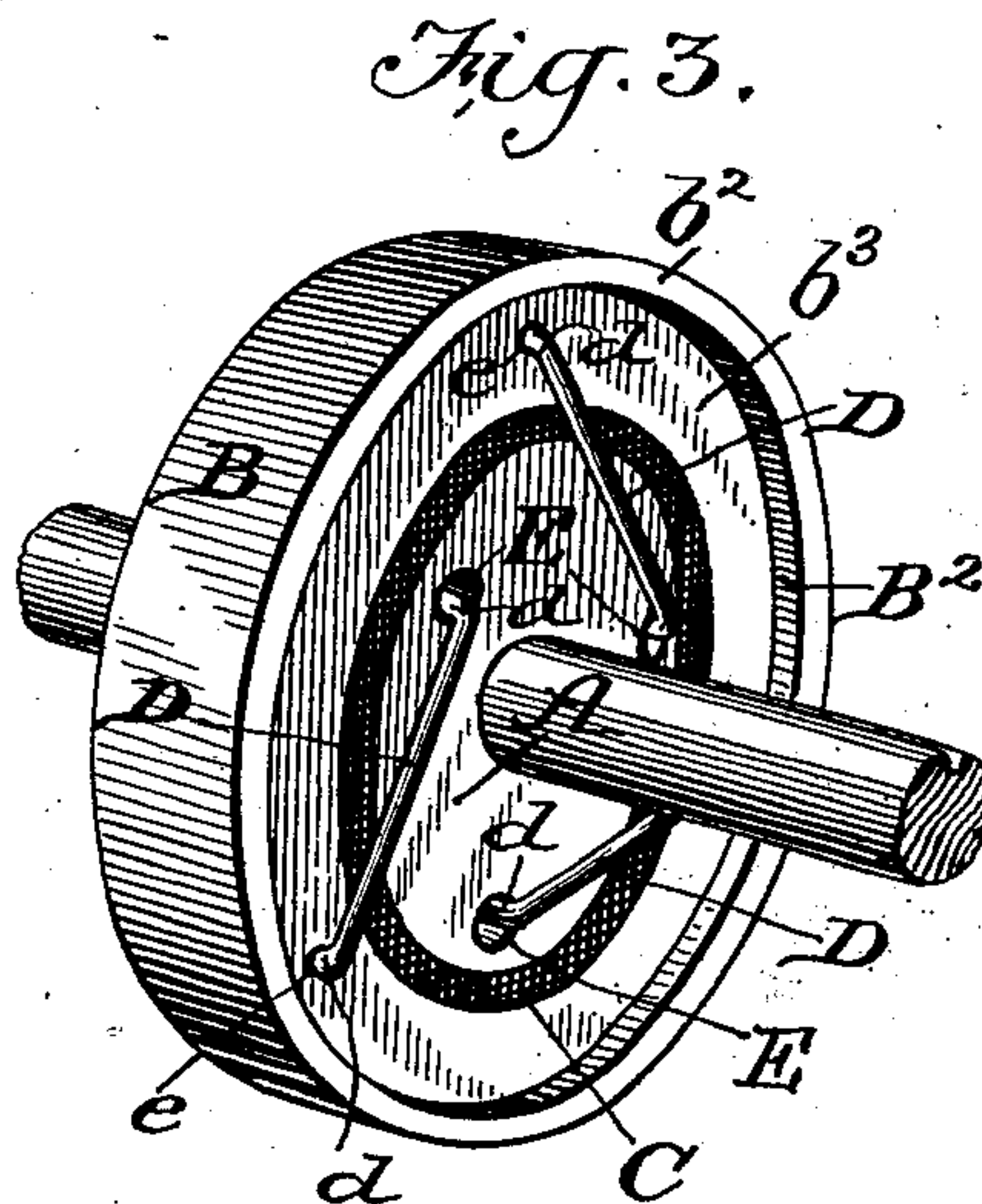
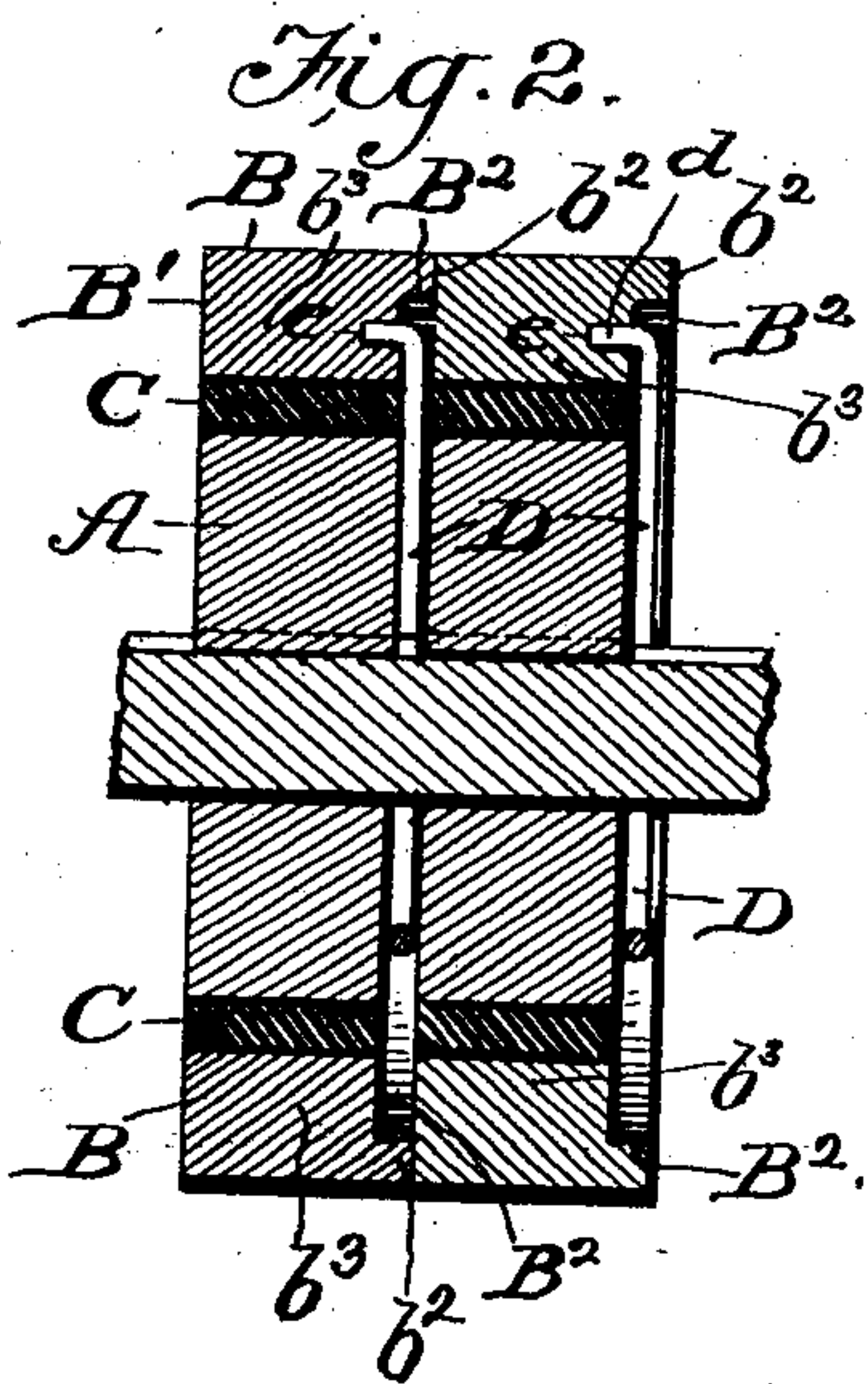
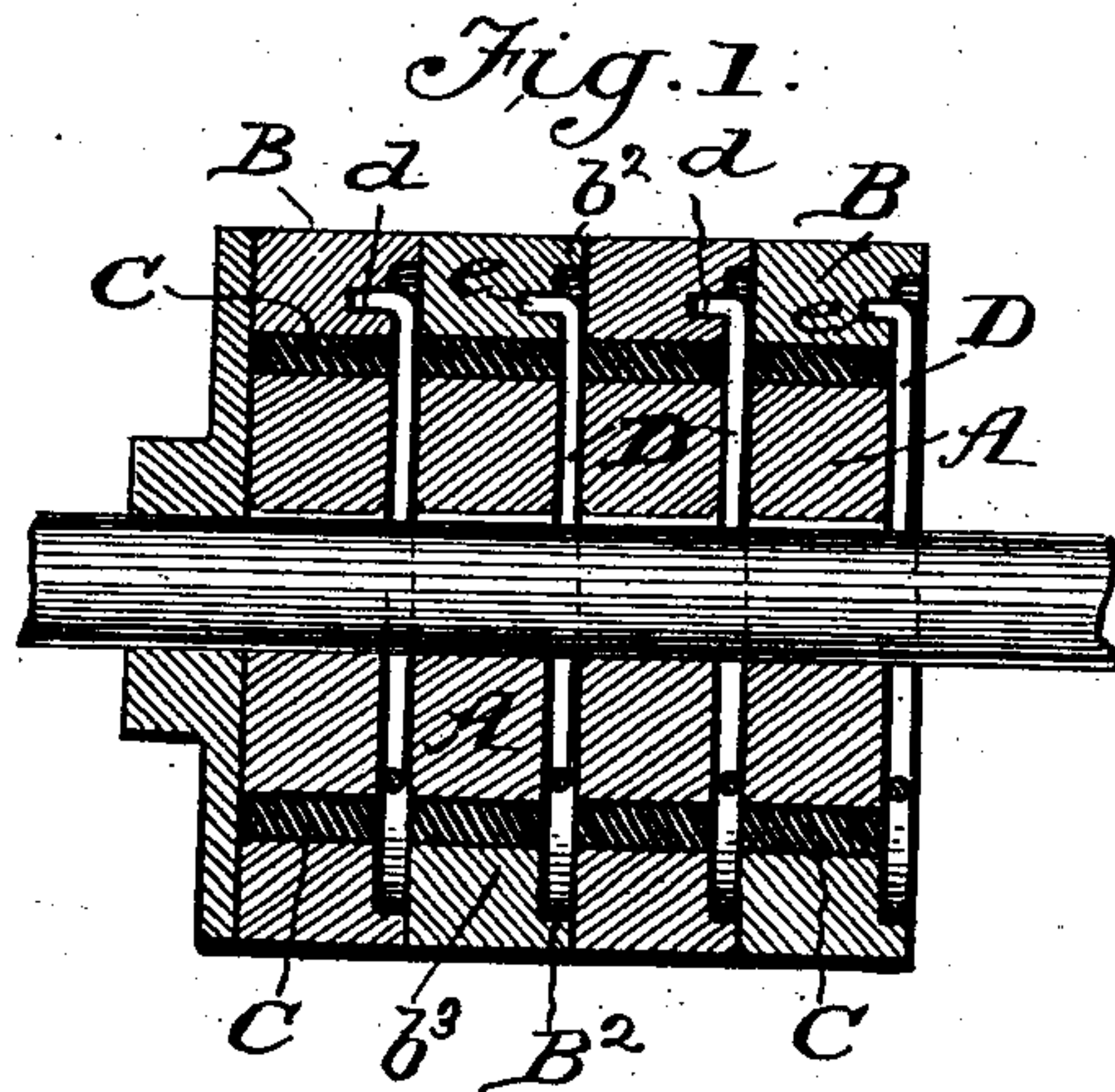
No. 715,553.

Patented Dec. 9, 1902.

B. F. CONKLE.
YIELDING ROLL.

(Application filed June 21, 1902.)

(No Model.)



WITNESSES:

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BERNARD F. CONKLE, OF JUNCTION CITY, OHIO.

YIELDING ROLL.

SPECIFICATION forming part of Letters Patent No. 715,553, dated December 9, 1902.

Application filed June 21, 1902. Serial No. 112,618. (No model.)

To all whom it may concern:

Be it known that I, BERNARD F. CONKLE, a citizen of the United States, residing at Junction City, in the county of Perry and State of Ohio, have made certain new and useful Improvements in Yielding Rolls, of which the following is a specification.

My invention is an improvement in yielding rolls for use on planing-machines and the like wherein it is desired to form the roll in sections, each section being capable of an independent yielding movement, so the different sections may adjust themselves to the varying thickness of the material fed to the machine; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a longitudinal section of a portion of a roll provided with my invention, showing a number of the yielding sections in place. Fig. 2 is a detail enlarged section of two of the roll-sections fitting side by side. Fig. 3 is a detail perspective view of the recessed face of one of the sections. Fig. 4 is a detail view of one of the connecting-links.

The yielding roll is shown constructed with a number of independent sections which fit side by side and will yield independently in a radial direction as well as circumferentially, and each section is composed of a central portion or core A, a rim portion B, a cushioning-strip C between the core A and rim B, and links D, connecting the core A and rim B and having a general longitudinal direction in the direction of the circumference of the rim B. The rim B is flat on one side B' and is provided in its opposite side with an annular rabbet or recess B² of a depth equal to the diameter of the connecting-links D, which fit at their outer ends therein. This rabbet B² provides a flange b² at the outer edge of the rim B and a body portion b³ of the rim, which portion b³ is of the same thickness as the core A, which fits within the rim, as shown in the drawings, and coincides at its opposite faces with respectively the face B' of the rim B and the base of the rabbet B², as shown in Figs. 1 and 2. The strip C, of rubber of similar material, fits between the core A and the rim B and is preferably in the form of a straight strip bent

into circular form around the core A and occupying the space between such core and the rim, as shown in the drawings.

The links D are provided at their ends with the pivot portions or studs *d*, which fit in sockets E and *e* in respectively the core A and the rim B. One of these openings E or *e* (shown as the opening E) is enlarged somewhat in order to permit a certain amount of longitudinal play of the links D.

In practice the links D are arranged with respect to the direction of rotation of the roll, with their rear ends in connection with the rim B, and it is obvious that when so adjusted and it is desired to reverse the direction of revolution of the rolls the links may be detached at their inner ends and adjusted from the socket E into the next socket *e* to the rear to preserve the relation of the links to the direction of rotation of the roll. When the several rolls are applied, it will be noticed the flat side or face B' of each section will fit against the recessed side of the adjacent section and will operate to prevent any displacement of the links D by holding the same in the recessed side of the rim B, as will be best understood from Figs. 1 and 2.

It will be understood that in operation the core is keyed to the shaft and the several sections being secured upon the shaft side by side constitute what may be known as a "yielding" broken roll.

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

1. A yielding broken-roll section comprising the core provided in one face with sockets spaced apart, the rim fitting over said core and provided in one face with a rabbet and in the base-wall with sockets corresponding to those in the core, the yielding strip between the core and rim, and the connecting-links provided at their ends with pins or studs entering the sockets in the core and rim, the face of the rim opposite the rabbeted side being plain, whereby it will operate to retain the links in the rabbet, all substantially as and for the purposes set forth.

2. The combination in a yielding broken-roll section, of the core, the rim fitting around the core, the yielding section between the core and rim, and the links jointed at their

inner ends to the core and at their outer ends to the rim, and extending longitudinally approximately in the direction of circumference of the rim, substantially as set forth.

5 3. A yielding broken-roll section comprising the core, the rim, the yielding section between the core and rim, and the links connecting the core and rim, the rim being rabbeted the thickness of the links and the latter being seated in the rabbet of the rim, substantially as set forth.

10 4. The combination of the core, the rim fitting over the core, the yielding section between the core and rim, the core and rim being provided with sockets and the sockets in one part being enlarged to permit the lon-

gitudinal play of the links, and the links provided at their ends with portions fitting in the sockets of the core and rim, substantially as set forth.

20 5. The combination of the core, the rim over the core, the yielding section between the core and rim, and the connecting-links extending alongside the core and rim and overlapping the yielding section and secured at 25 their inner ends to the core and at their outer ends to the rim, substantially as and for the purposes set forth.

BERNARD F. CONKLE.

Witnesses:

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