

No. 747,563.

PATENTED DEC. 22, 1903.

P. MULLEN.
CHAIN GUARD.

APPLICATION FILED SEPT. 19, 1903.

NO MODEL.

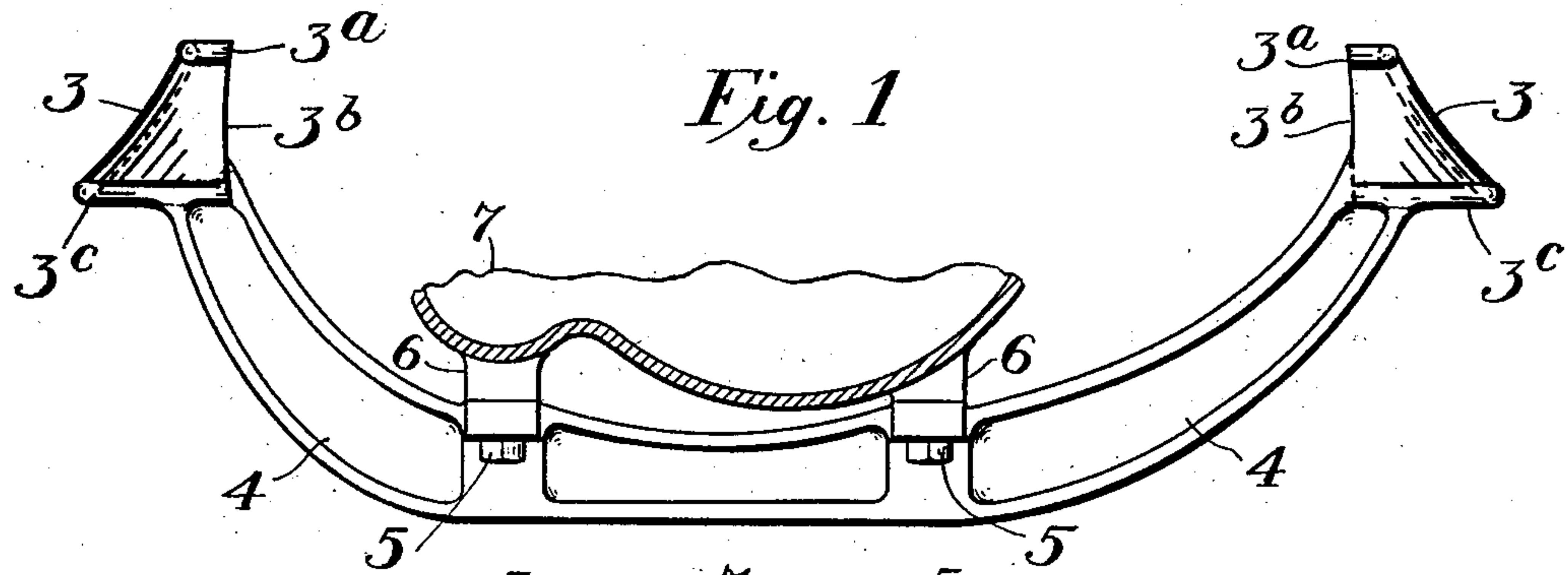


Fig. 1

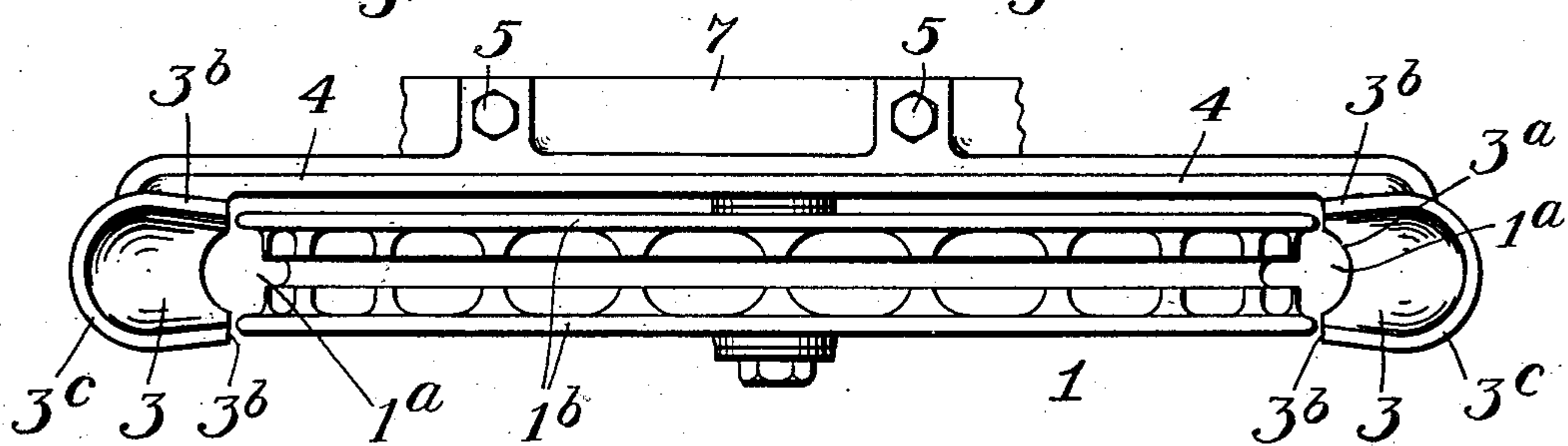


Fig. 2

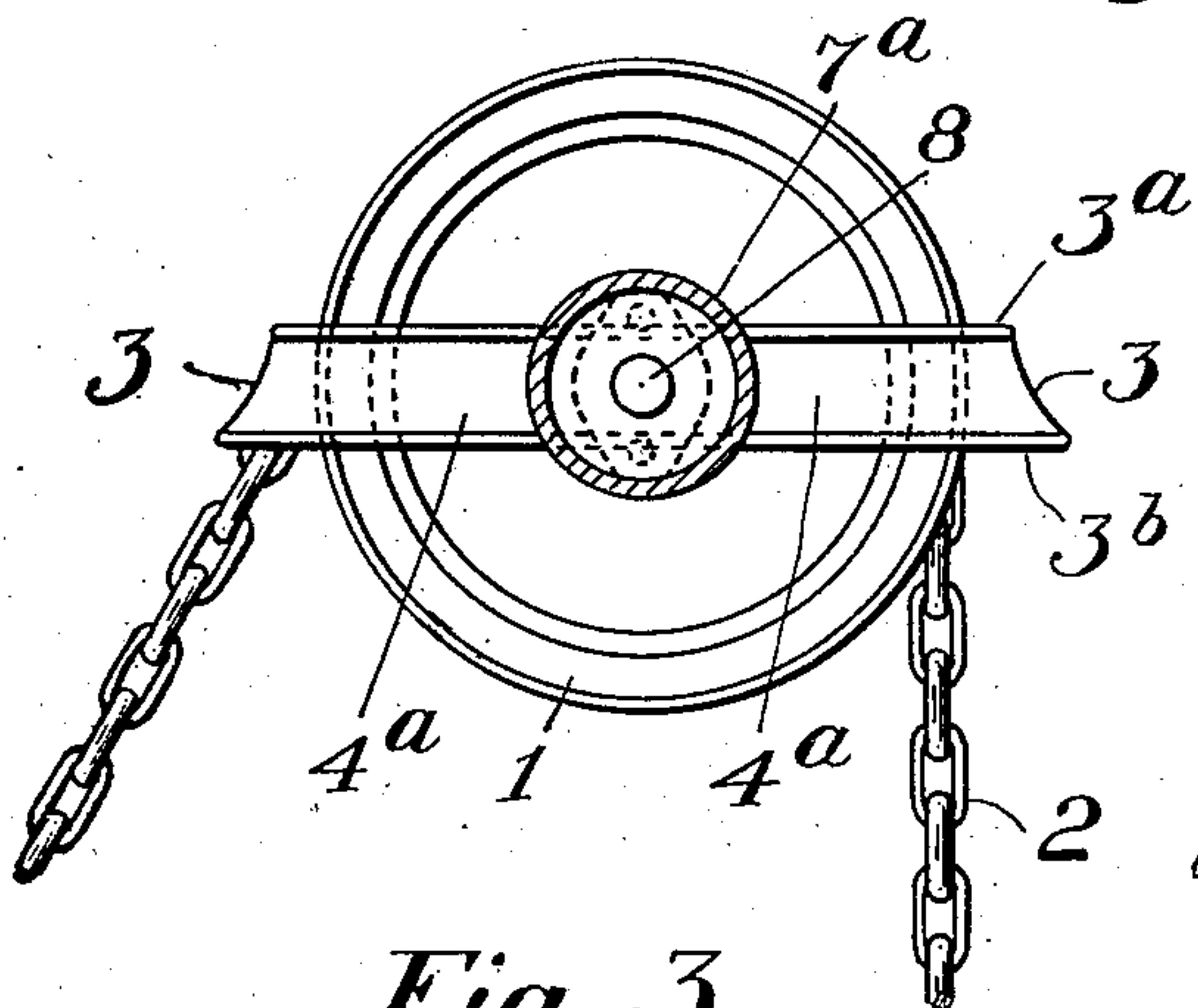


Fig. 3

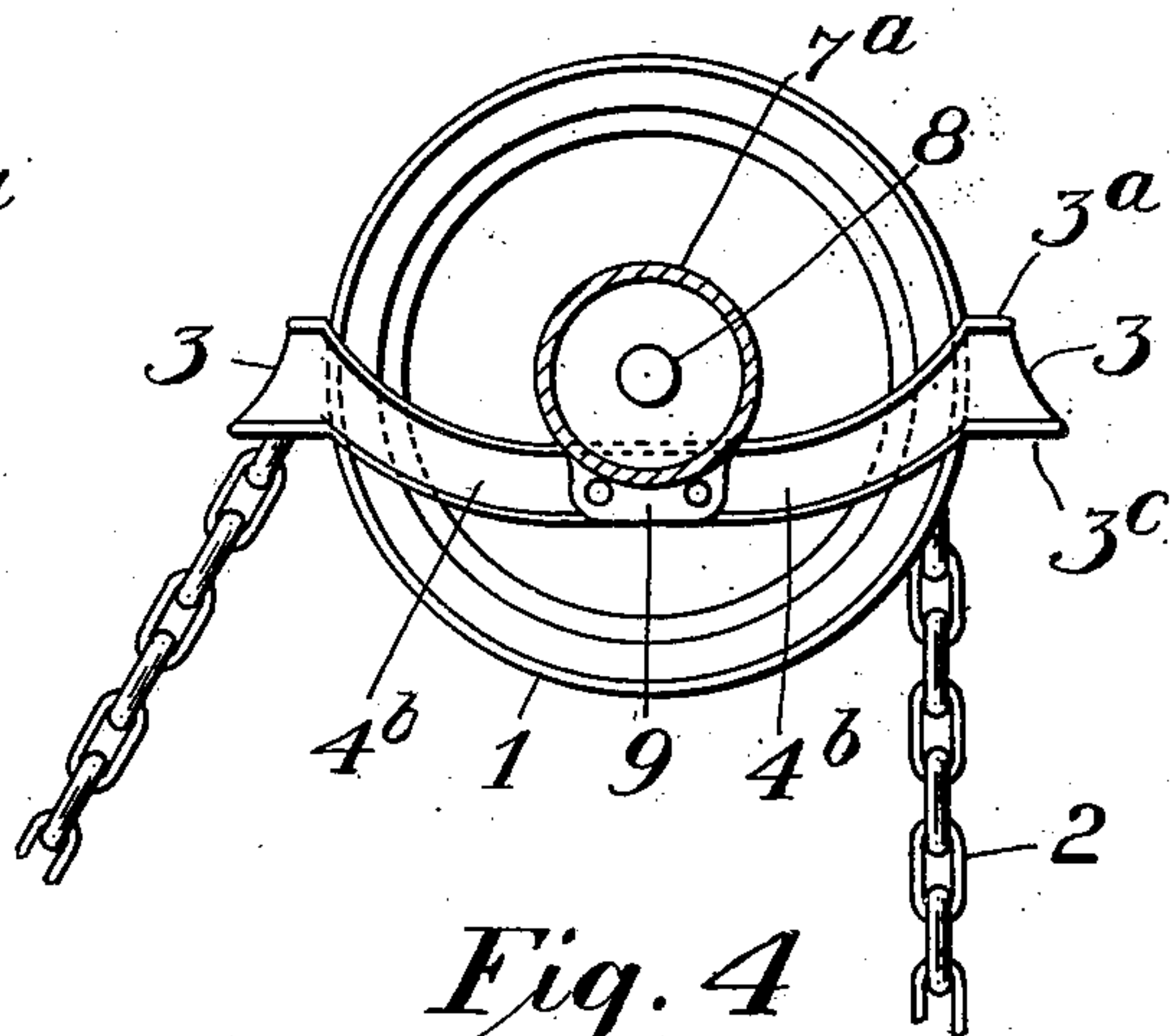


Fig. 4

WITNESSES:

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PETER MULLEN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO EDWIN HARRINGTON, SON AND COMPANY, INCORPORATED, OF PHILADELPHIA, PENNSYLVANIA.

CHAIN-GUARD.

SPECIFICATION forming part of Letters Patent No. 747,563, dated December 22, 1903.

Application filed September 19, 1903. Serial No. 173,793. (No model.)

To all whom it may concern:

Be it known that I, PETER MULLEN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain Improvements in Chain-Guards, of which the following is a specification.

This invention is more particularly a chain-guard fixed in relation to a hoist and adapted for constantly holding the chain in the desired relation to the power-sheave, while permitting a straight pull outwardly at an angle to the vertical and the application of the total power directly to the sheave.

The nature and characteristic features of the improvements will more fully appear by reference to the following description and the accompanying drawings in illustration thereof, of which—

Figure 1 represents an elevation of a chain-guard made in accordance with the invention. Fig. 2 represents a bottom plan view of the same applied to a power-sheave. Fig. 3 represents the improvements in a modified relation, and Fig. 4 represents a further modification in the application of the same.

As shown in the drawings, the power-sheave 1 has the hand-chain 2 held thereon by the guards 3, which may be supported by the integrally-connected curved arms 4, fastened by the bolts 5 to suitable bearings 6 on the hoist-casing 7 or by the integrally-connected straight arms 4^a, fixed to the casing-sleeve 7^a, having the power-shaft 8 passing there-through, or by the arms 4^b, fixed to the flange 9 of the casing-sleeve.

The guard 3 has the semicircular top 3^a, which supplements the adjacent section of the power-sheave groove 1^a to form a comparatively snug inclosure for the hand-chain 2, preferably above the horizontal diameter of the sheave, the chain being held thereby in engagement with the sheave's periphery and prevented from buckling or jumping from the groove. The guard's body is approximately a vertically-divided cone-frustum having its sides 3^b in juxtaposition to the sheave-flanges 1^b, its curved body flaring

or curving outwardly and terminating in a curved bottom 3^c, whose medial point is in a line tangent to the sheave at a point—say thirty degrees—above its horizontal diameter.

It will now be understood that the hand-chain may be pulled outwardly at various angles to the vertical and exert a straight pull or convey the entire power to its point of engagement with the sheave while running freely through the guard and held snugly to its groove, and, further, the bell-shaped character of the guard, with its wall or body extending downwardly and outwardly, provides for the smooth running of the chain therethrough at extreme oblique pulls, prevents the locking action due to a sharp break in the direction of the force, and avoids wear, while the location of its curved top and side walls contiguous to or in continuation of the sheave's flanges holds the chain in position. The guard combines with the sheave-flanges in forming approximately at the horizontal diameter of the sheave an elongated eye or way having a bore gradually increasing downwardly.

Having described my invention, I claim—

1. A chain-guard having an approximately semicircular top and a body extending downwardly and outwardly therefrom, substantially as specified.

2. A chain-guard, in combination with a sheave, said guard having a curved top, a body extending downwardly and outwardly therefrom, and sides continuant of said sheave's flanges, substantially as specified.

3. A chain-guard having an approximately semicircular top and a body extending downwardly and outwardly therefrom, in combination with a sheave, and an arm for holding said guard stationary in relation to said sheave and approximately at the horizontal diameter thereof, substantially as specified.

4. A chain-guard having a curved body, in combination with a sheave having flanges, said body and flanges forming an elongated eye or way having a gradually-increasing bore, substantially as specified.

5. A chain-guard having a curved body, in

combination with a sheave having flanges,
said body and flanges forming an elongated
eye or way having a gradually-increasing
bore, a casing, and an arm holding said guard
5 in fixed relation to said casing, substantially
as specified.

In testimony whereof I have hereunto set

my hand, this 18th day of September, A. D.
1903, in the presence of the subscribing wit-
nesses.

PETER MULLEN.

Witnesses:

LIDA C. GRANT,

UTLEY E. CRANE, Jr.