

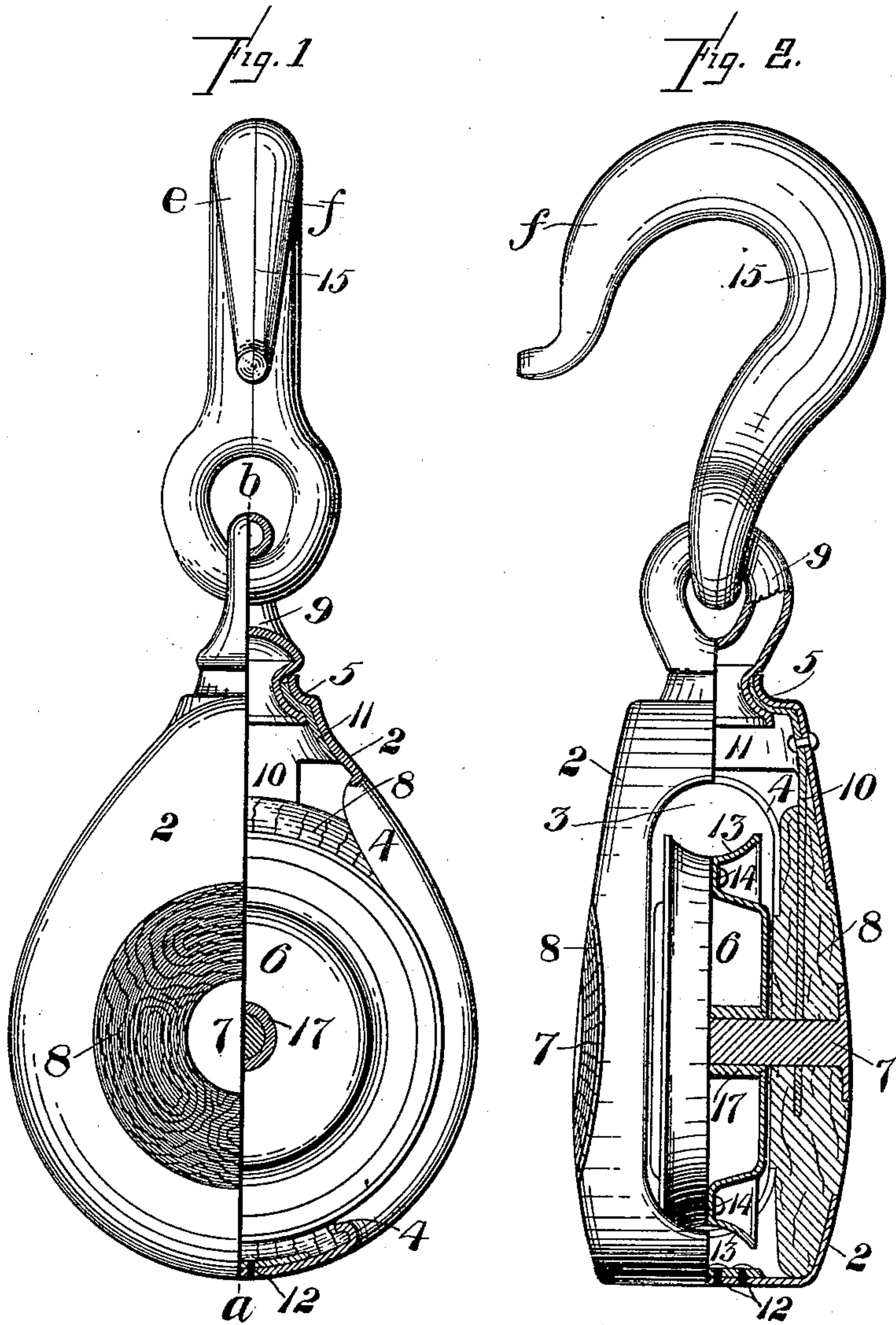
(No Model.)

2 Sheets—Sheet 1.

J. L. POPE.  
PULLEY BLOCK.

No. 512,990.

Patented Jan. 16, 1894.



WITNESSES:  
Warren W. Swartz  
H. M. Connor

INVENTOR,  
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his Attorneys

(No Model.)

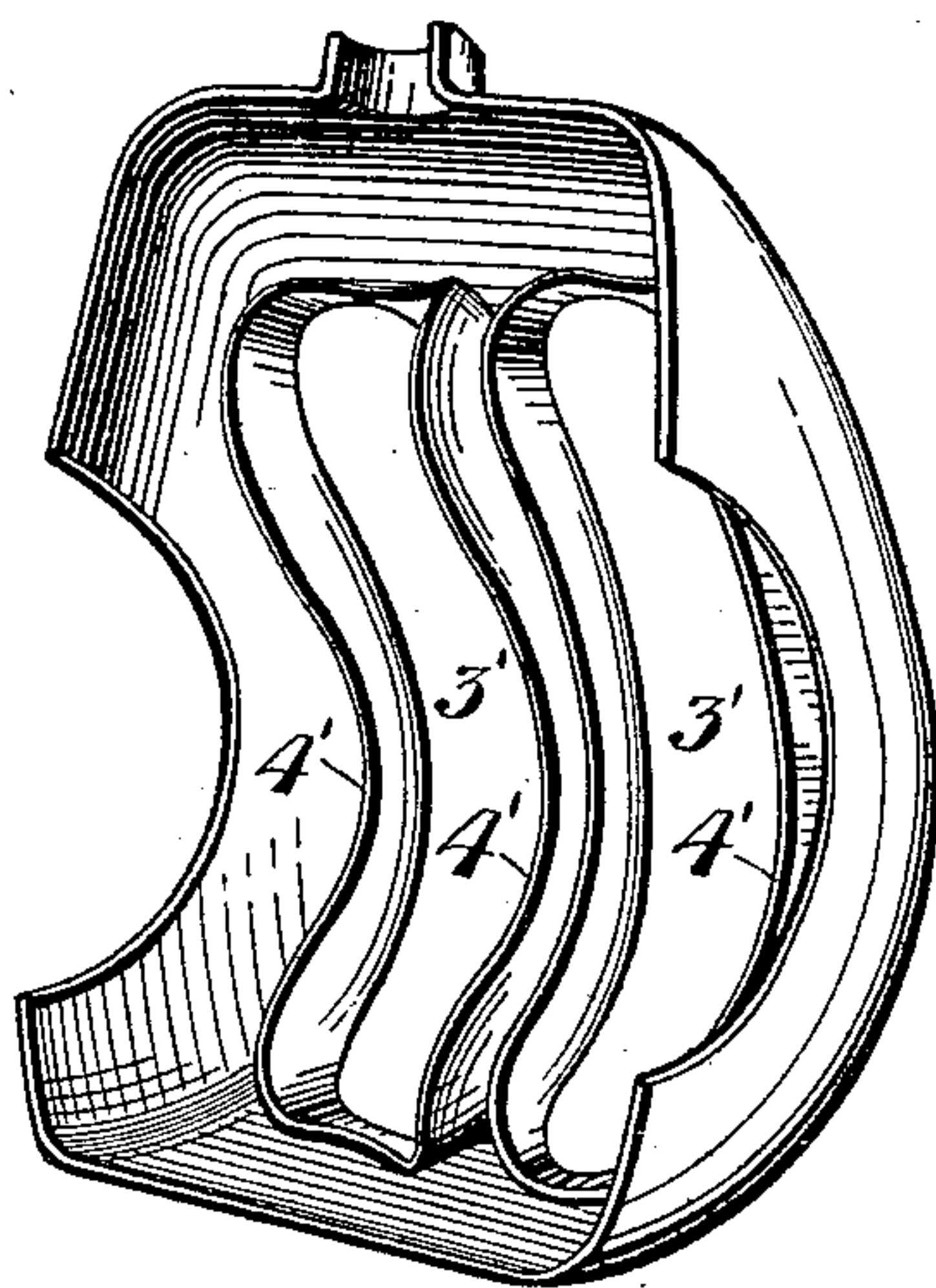
2 Sheets—Sheet 2.

J. L. POPE.  
PULLEY BLOCK.

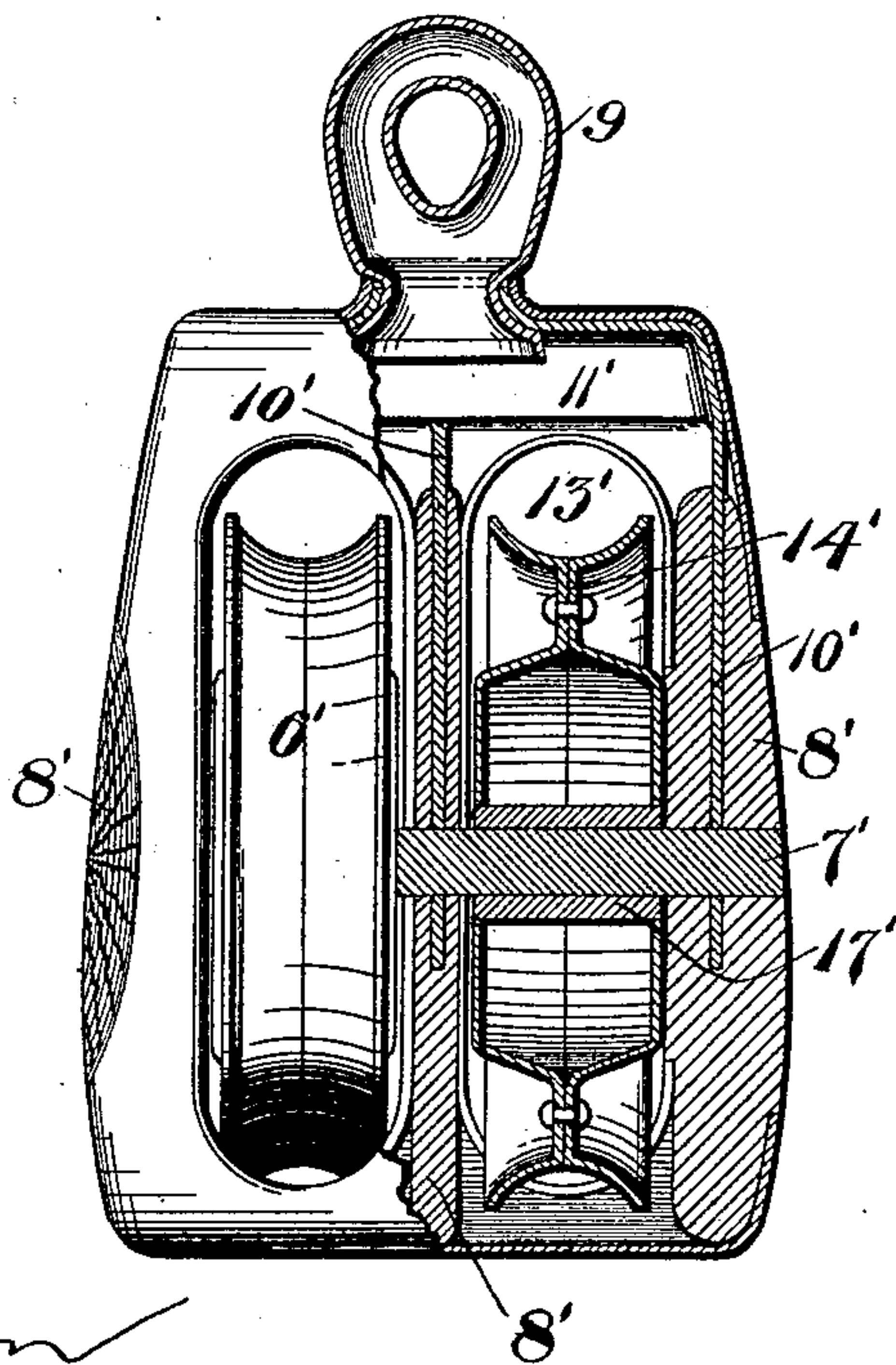
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*Fig. 3.*



*Fig. 4.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN L. POPE, OF CLEVELAND, OHIO.

## PULLEY-BLOCK.

SPECIFICATION forming part of Letters Patent No. 512,990, dated January 16, 1894.

Application filed December 9, 1892. Serial No. 454,597. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN L. POPE, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in Pulley-Blocks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation, partly in vertical section, on the line I—I of Fig. 2, showing my improved pulley-block. Fig. 2 is an edge elevation thereof, partly in vertical section, on the line a—b of Fig. 1. Figs. 3 and 4 illustrate multiple pulley-blocks of my invention, Fig. 3 showing in perspective the interior of one of the metallic shells, and Fig. 4 showing the pulley-block, partly in edge view and partly in vertical section.

Like symbols of reference indicate like parts in each of the views.

The pulley block of my invention comprises essentially the following parts:—a pressed metal shell or casing made in section fitted together edgewise of the sheave, an interior sheave, or pulley, and filling blocks of wood or other soft material contained by the shell and set at the sides of the sheave, for the sheave to bear against.

My invention relates to the combination of these parts and also severally to certain novel constructions of the sheave, the wooden filling blocks, and their attachment to the shell, the shell itself, and the hook and swivel by which the block is suspended.

It also relates to a multiple pulley-block of improved construction.

In the drawings, 2, 2, represent the metal shell of the pulley-block, made in two symmetrical sections divided on the line a b, which bisect the side of the shell so that the sections are adapted to fit together edgewise of the sheave. Each section is made of pressed or stamped metal and has at its lateral edge a mortise-opening 3, formed by slitting the metal and pressing in the edges 4, thus strengthening the shell at the mortise and forming recesses to receive the wooden filling-blocks hereinafter described. At the

upper end the sections of the shell are contracted in diameter, so that when put together they shall constitute an annular shoulder 5 for the swivel.

6 is the sheave whose hub is set pivotally on a pin 7 passing through wooden filling-blocks 8 of circular outline. These blocks are set at the sides of the sheave, between the sections of the shell, whose cheeks are filled and strengthened thereby. The blocks also serve as lateral bearings for the sheave. Their novel feature of construction is that they are circular in outline, the advantage being that I am enabled thereby to secure a smaller, lighter and cheaper pulley-block than otherwise.

9 is a swivel eye, whose preferable construction I shall describe hereinafter. Its shank fits within the annular shoulder 5 at the top of the shell-sections, and it is linked to the eye of a hook 15, as shown in Figs. 1 and 2.

In order to assist the shell in taking the strain from the pin and putting it on the hook when the pulley-block is in use, I employ straps 10 extending from a collar 11, which fits within the shoulder of the shell and over the shank of the swivel. These straps extend downwardly and encircle the pin, preferably extending through saw-scarfs or slots in the filling blocks.

The sections of the shell are held together at their meeting edges by connecting plates and rivets 12, or otherwise, and preferably also, by riveting to the collar 11 as shown.

The sheave is preferably constructed as follows: It is made in pressed sections of circular outline, each having a semi-grooved periphery 13, and having an annular portion 14 pressed inwardly to constitute a meeting and riveting web for attachment to a similar portion of the other section. These sections are set against each other side to side, and are fixed together as shown in Fig. 2; and at the center of the sheave thus constituted there is an interposed short tubular section or thimble 17 set between the sections and adapted to constitute the bearing through which the pin passes. The sheave so con-



structed is light and very strong. Within the circle of the riveted webs, the sides of the sheave project laterally so as to constitute flat bearing faces extending beyond the limits of the margins of the peripheral groove of the sheave. These faces keep the margins of the sheave from rubbing against the sheave-block, and thus diminish the friction and prevent chafing of the rope.

10 In Figs. 3 and 4 I illustrate a pulley-block with more than one sheave, constructed in accordance with my invention. The shell of the pulley-block is made of two laterally divided sections, which fit together edgewise of the sheave. One of these sections is illustrated in Fig. 3. Each section has mortise openings 3', preferably formed with in-turned edges, as above explained. Filling-blocks 8' are inserted on the outer sides of the sheaves, and 20 a filling-block 8' is inserted in the middle between the sheaves, fitting at its edges between the inturned edges of the mortises. The sheaves are set between the filling-blocks, on a pin 7', which preferably passes 25 through straps 10' depending from a collar 11', arranged as above explained. It should be understood in this connection that by making the shell thicker with a correspondingly increased number of mortises, and inserting a filling block between each adjacent 30 pair of sheaves, I may make a pulley block

of two or more sheaves, and such constructions I intend to include in my claims.

I claim—

1. A pulley block having a metal shell, a 35 swivel, a collar between the shell and swivel, and a hook whose eye is linked into the swivel; substantially as described.

2. A pulley block having a metal shell, a sheave having a pin, a swivel, a collar between the shell and swivel, and straps extending from the collar to the pin; substantially as described. 40

3. A pulley block having a metal shell, a swivel, a two-part collar between the shell 45 and swivel, straps extending from each part to the sheave-pin, and a hook whose eye is linked into the swivel; substantially as described.

4. A pulley block having a metal shell 50 formed of laterally divided sections, filling blocks of soft material therein, a swivel, a collar between the shell and swivel, and a hook whose eye is linked into the swivel; substantially as described. 55

In testimony whereof I have hereunto set my hand this 3d day of December, 1892.

JOHN L. POPE.

Witnesses:

HARRISON B. MCGRAW,  
W. B. WHITING.