

(No Model.)

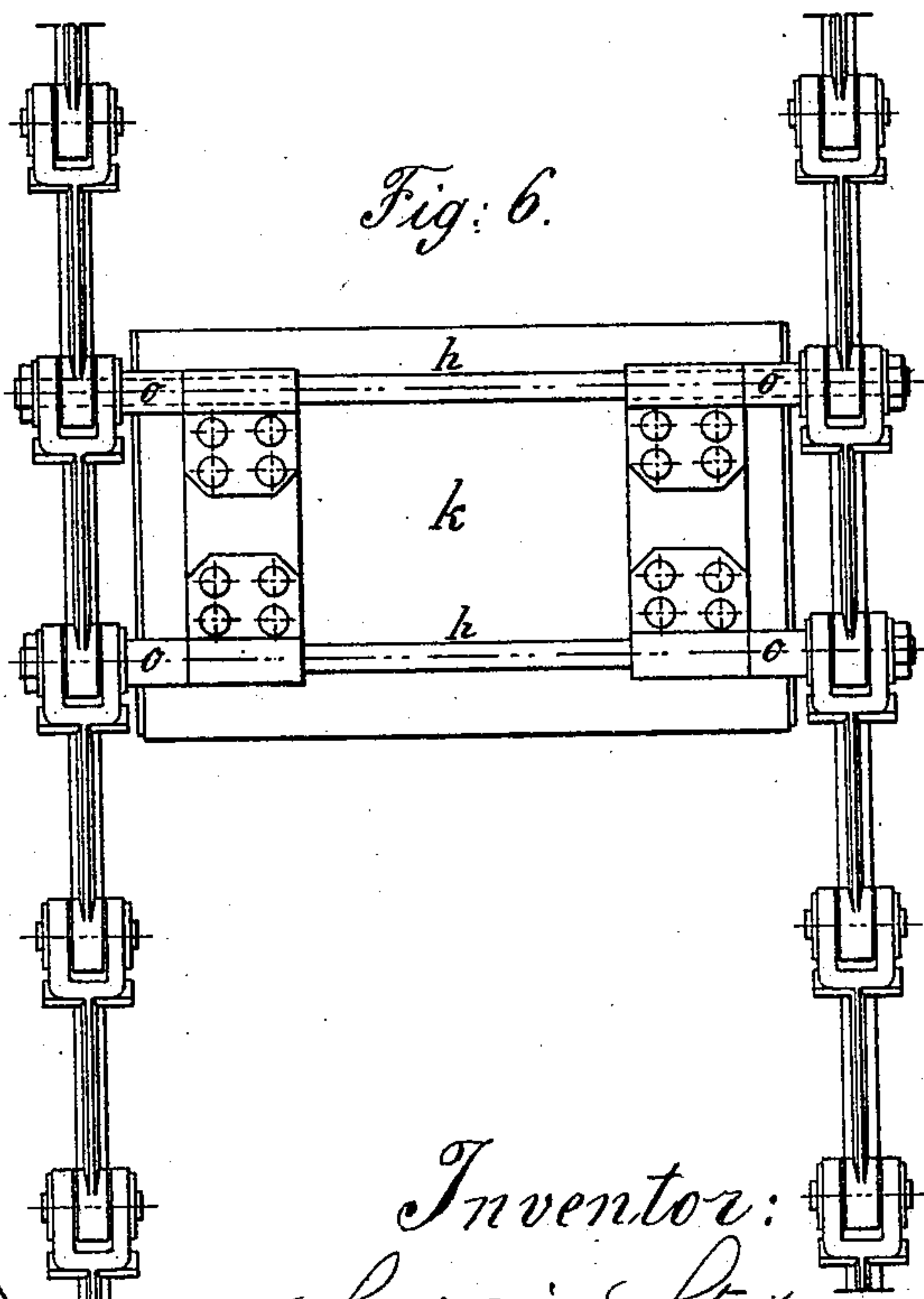
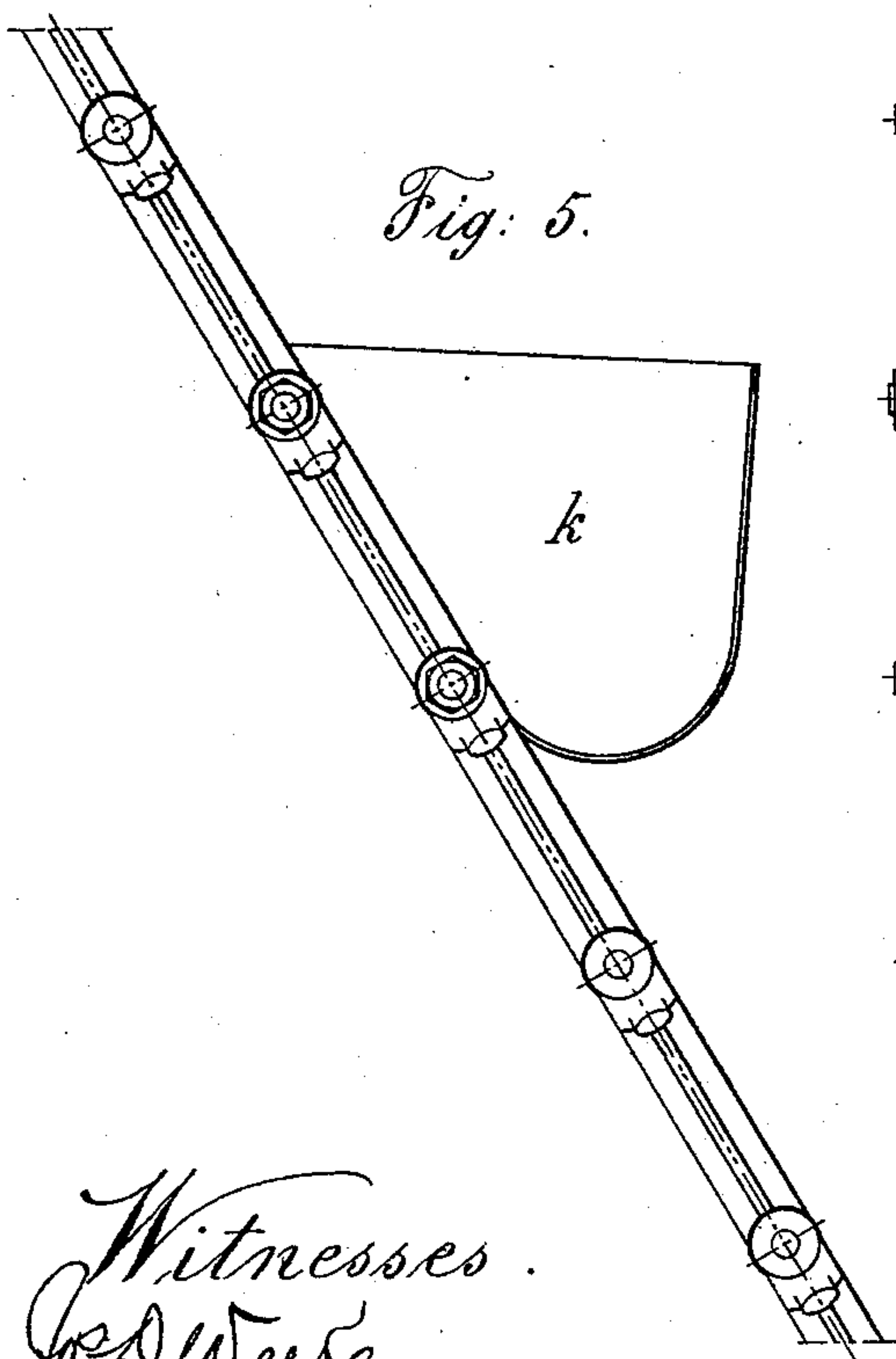
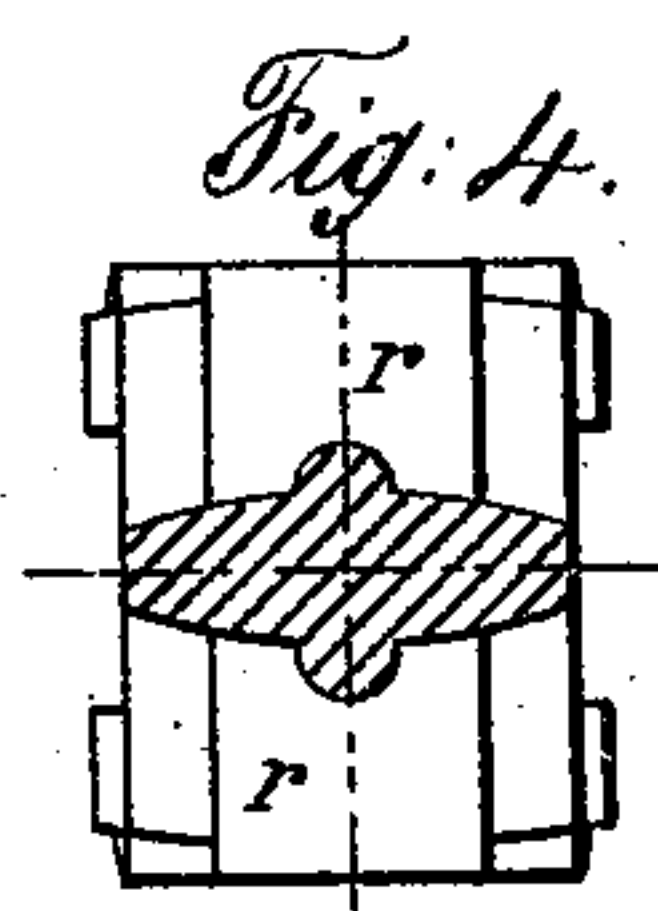
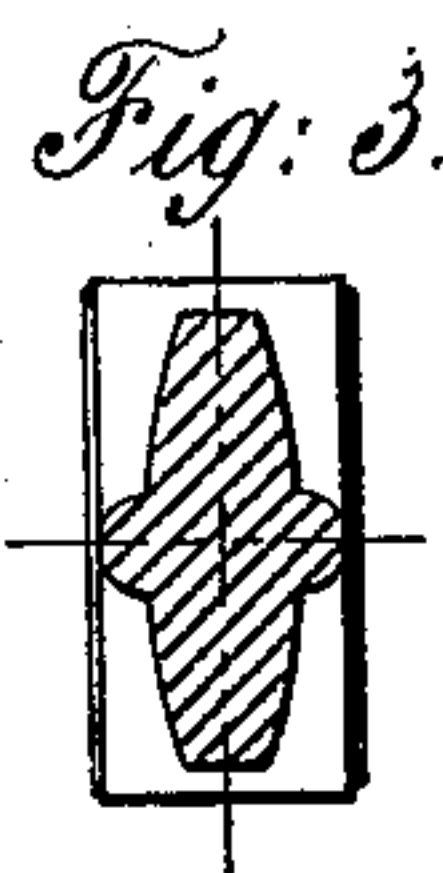
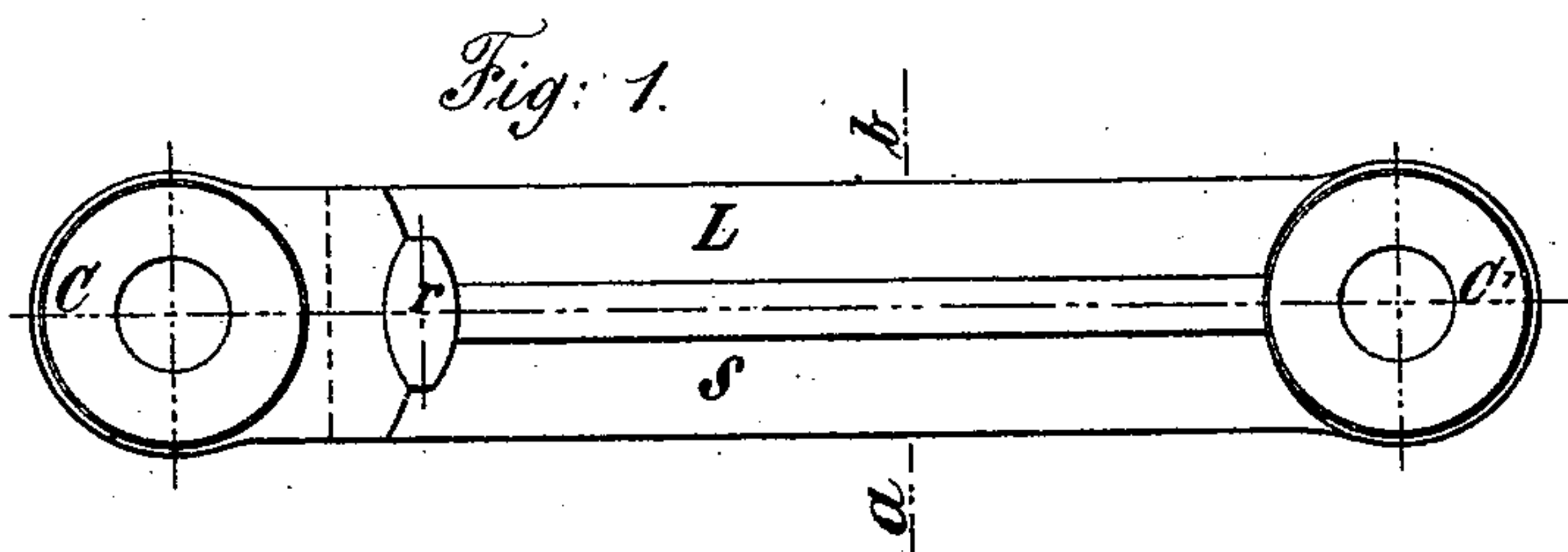
2 Sheets—Sheet 1.

S. STUTZ.

CHAIN LINK AND PULLEY FOR ELEVATORS.

No. 251,315.

Patented Dec. 20, 1881.



Witnesses.  
*J. C. Armstrong*

Inventor:  
*Sebastian Stutz*

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2 Sheets—Sheet 2.

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Fig. 7.

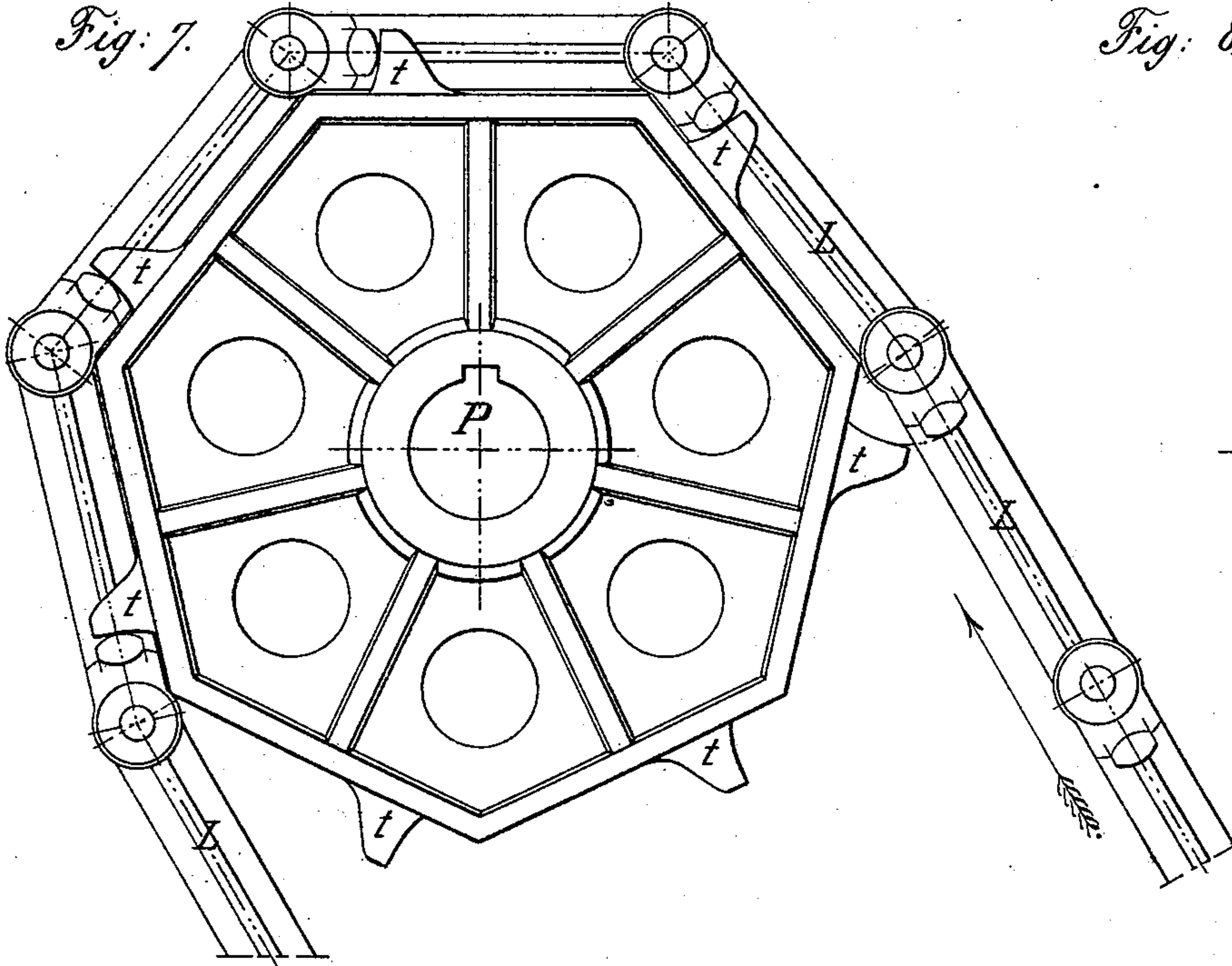


Fig. 8.

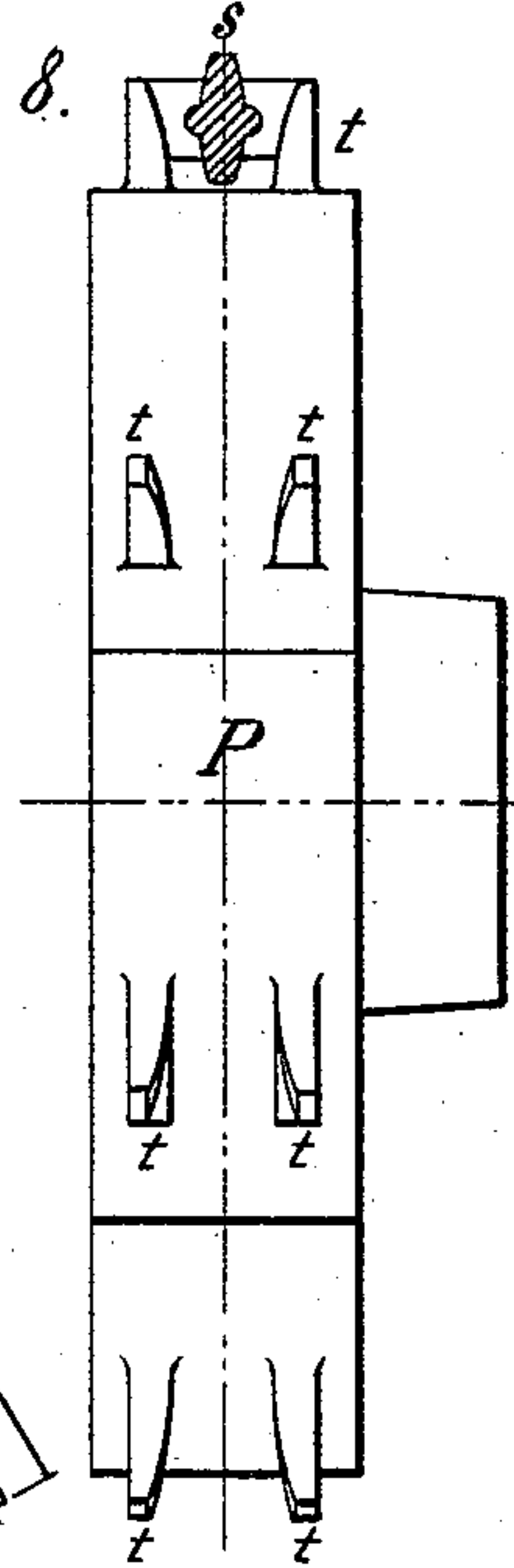


Fig. 9.

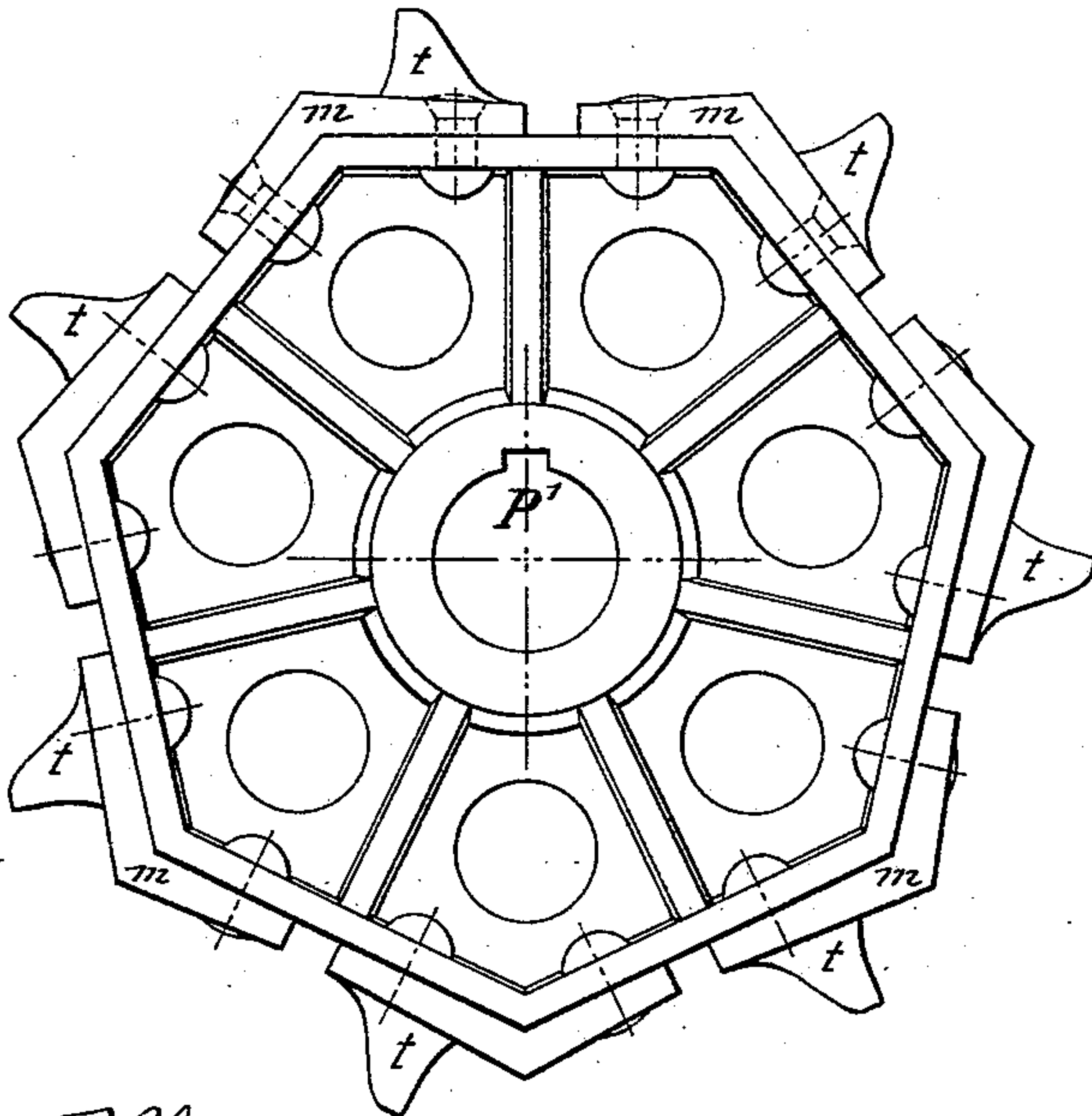
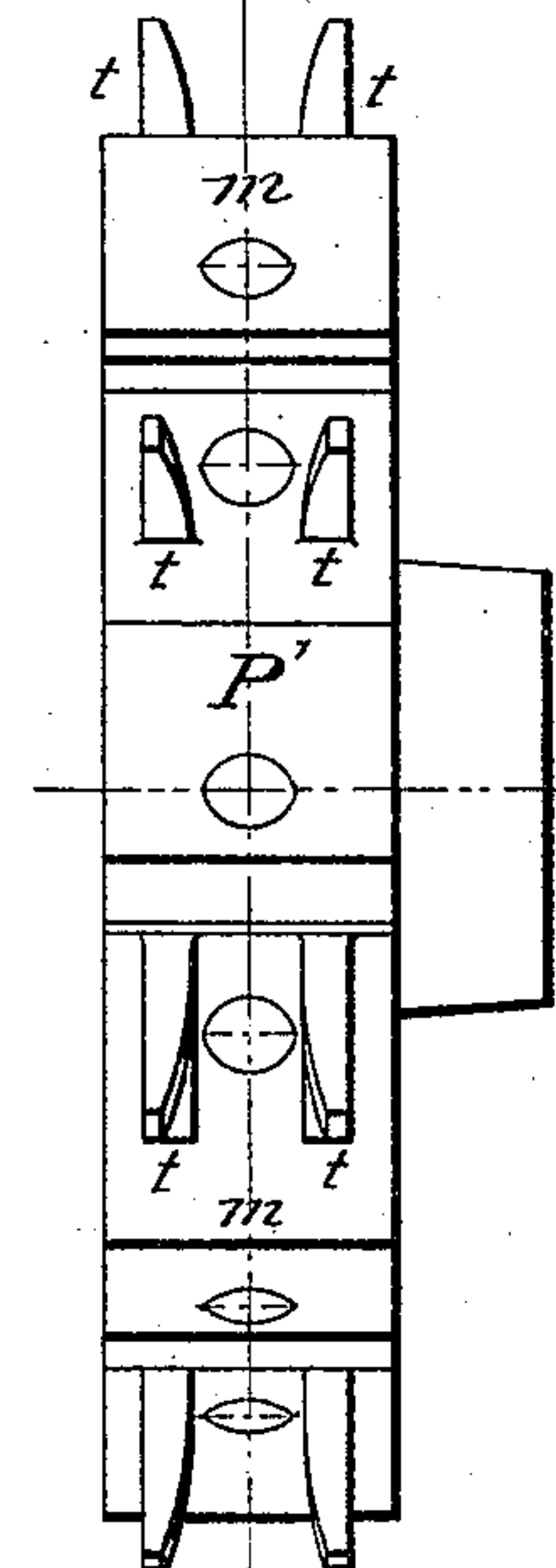


Fig. 10.



Witnesses:  
*J. C. Armstrong*

Inventor:  
*Sebastian Stutz*



# UNITED STATES PATENT OFFICE.

SEBASTIAN STUTZ, OF PITTSBURG, PENNSYLVANIA.

## CHAIN-LINK AND PULLEY FOR ELEVATORS.

SPECIFICATION forming part of Letters Patent No. 251,315, dated December 20, 1881.

Application filed October 12, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, SEBASTIAN STUTZ, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Chain-Links and Pulleys for Elevators or Hoisting-Machines, of which the following is a specification.

My invention relates to improvements in chain-links and pulleys for hoisting or elevating machinery; and the object of the invention or improvement is to prevent loss of pieces and time. I attain this object by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a side view; Fig. 2, a top view; and Figs. 3 and 4 are cross-sections, respectively in the lines *a b*, Fig. 1, and *c d*, Fig. 2. Fig. 5 represents a side view, and Fig. 6 a front view, of the chain and buckets. Figs. 7 and 8, and Figs. 9 and 10 are front and side views of the pulleys.

Similar letters refer to similar parts throughout the several views.

In hoisting or elevating coal or minerals, &c., by means of chains and buckets it is of great importance to insure and maintain a regular and steady movement of the chain during its working—that is, to prevent any jerking or slipping. This I obtain by means of the link *L*, shown in Figs. 1 to 4, and the pulleys *P P'*, Figs. 7 to 10.

*CC'* are the connecting parts, and *s* the shank of the link. The latter is provided with special recesses or projections *r*, preferably located near the upper connecting part. The links are put together by means of pins *f*, secured by

rivets *n* or by bolts and nuts. Rods *h*, reaching across from one chain to the other, support the buckets *k*. They are kept in place by screw-nuts on the outside and pieces of gas-pipes *o* inserted between the links and the ears of the buckets.

The sides of the polygonal pulleys *P P'*, Figs. 7 to 10, upon which the chain is to work, have corresponding pairs of recesses or teeth, *t*, which at the proper time inclose the shank *s* and take hold below the recesses *r* of the links *L*. Thus the latter are carried around perfectly secured, no slipping or jerking of the chain being possible, till they develop again at the rear of the pulleys and are allowed to leave. The pulley *P*, Figs. 7 and 8, is made in a single piece with the recesses or teeth *t*, while the pulley *P'*, Figs. 9 and 10, has independent angle-pieces *m*, for which Letters Patent No. 243,738, July 5, 1881, have been granted to me, and which may receive the same recesses or teeth *t*.

What I claim, and desire to secure by Letters Patent, is—

1. A polygonal pulley for elevating or hoisting machines having upon its outer sides pairs of projecting recesses or teeth *t t*, substantially as described, and for the purpose set forth.

2. A chain-link for elevating or hoisting machines having recesses or projections *r r* upon its lateral sides, said projections to be at a uniform distance from the connecting-points, substantially as described, and for the purpose set forth.

Witnesses: SEBASTIAN STUTZ.

J. J. McCORMICK,

MICHAEL McDONALD.