

No. 711,786.

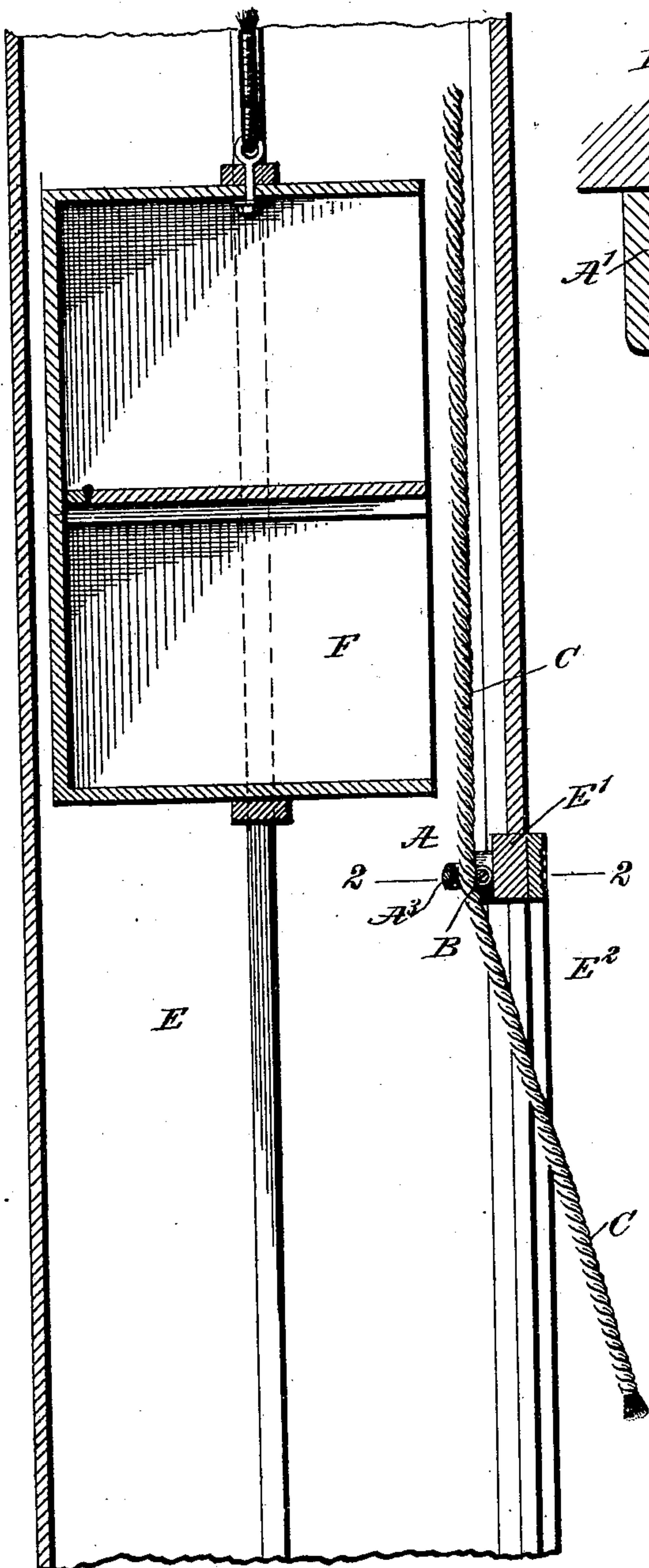
Patented Oct. 21, 1902.

W. G. POULSON.  
ROPE GUIDE.

(Application filed Mar. 8, 1902.)

(No Model.)

Fig. 1.



WITNESSES:

*Geo. M. Taylor.*  
*Rev. G. H. H. H.*

Fig. 2.

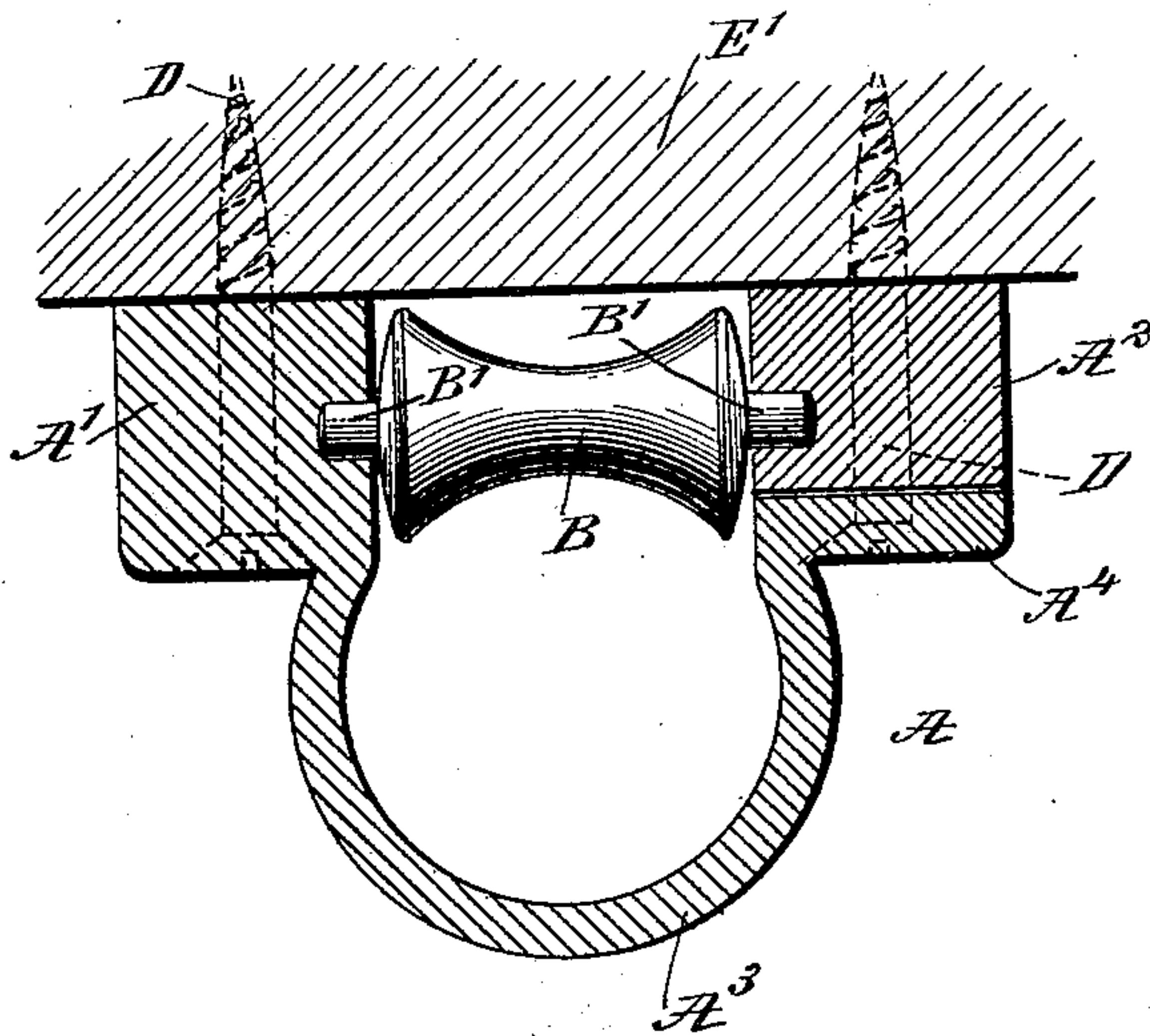
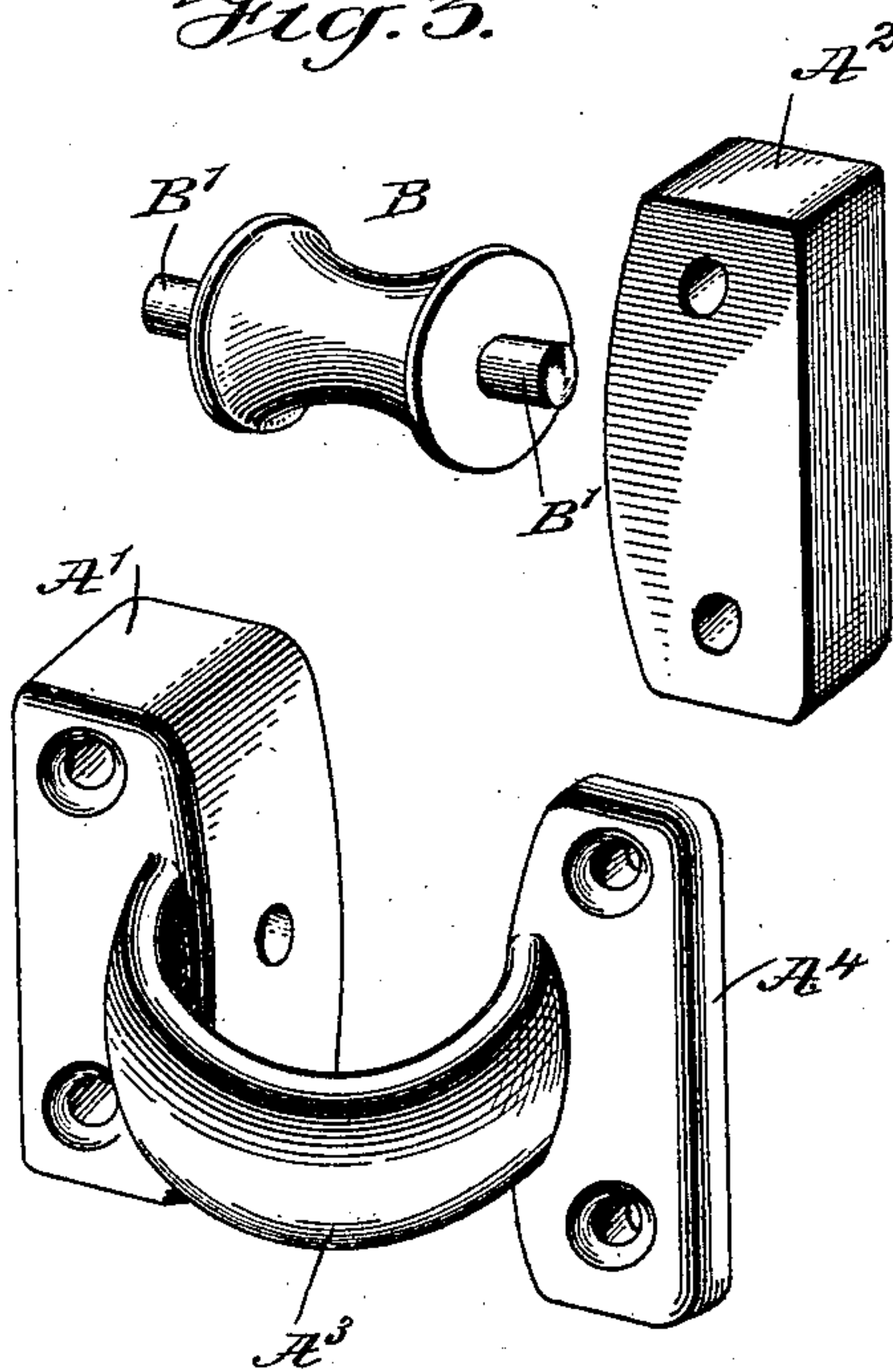


Fig. 3.



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# UNITED STATES PATENT OFFICE.

WILLIAM GRANT POULSON, OF NEW YORK, N. Y.

## ROPE-GUIDE.

SPECIFICATION forming part of Letters Patent No. 711,786, dated October 21, 1902.

Application filed March 8, 1902. Serial No. 97,272. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM GRANT POULSON, a citizen of the United States, and a resident of the city of New York, borough of the Bronx, in the county and State of New York, have invented a new and Improved Rope-Guide, of which the following is a full, clear, and exact description.

The invention relates to dumb-waiters; and its object is to provide a new and improved rope-guide for the hoisting and lowering ropes of dumb-waiters and the like which is simple and durable in construction, cheap to manufacture, easily applied, and arranged to prevent chafing and breaking of the ropes and abrasion of the wood adjacent to the guide and to reduce the friction between the rope and the guide to a minimum, and hence allow raising or lowering of the cage or box without much physical exertion on the part of the operator.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a transverse section of a dumb-waiter provided with the improvement. Fig. 2 is an enlarged sectional plan view of the improvement on the line 2 2 of Fig. 1; and Fig. 3 is a perspective view of the improvement, showing the several parts separated.

The rope-guide consists, essentially, of a yoke A and a roller or sheave B, journaled in the base-blocks A' and A<sup>2</sup> of the said yoke A in such a manner that the yoke and the roller form an approximately circular passage for the rope C. The yoke A has its yoke-body A<sup>3</sup> segmental, and the roller B is concaved and located relative to the yoke-body A<sup>3</sup> to form the circular passage above referred to, special reference being had to Fig. 2.

In order to allow of conveniently journaling the roller B in the base-blocks A' and A<sup>2</sup>, I make one of the base-blocks as shown, the block A' integral with the yoke-body A<sup>3</sup>, and the other base-block A<sup>2</sup> is made in a separate piece to allow of conveniently assembling the

several parts constituting the rope-guide—that is, conveniently inserting the trunnions B' of the roller B in the bearings of the base-blocks A' and A<sup>2</sup>.

The base-block A<sup>2</sup> fits onto the flange A<sup>4</sup>, integral with one end of the body A<sup>3</sup>, as plainly shown in Figs. 2 and 3. Suitable screws D or like fastening devices are employed to fasten the base-blocks A' and A<sup>2</sup> to the lintel E' of the dumb-waiter shaft E, the screws for the base-block A<sup>2</sup> also serving to fasten the latter to the flange A<sup>4</sup>.

In practice I provide a rope-guide for the hoisting-rope and one for the lowering or pulling rope of the dumb-waiter cage or box F, mounted to travel up and down in the usual manner in the dumb-waiter shaft E, the latter having at each floor of the building an opening E<sup>2</sup> to allow access to the cage F and the hoisting and lowering ropes.

The roller-guides in order to be very efficient are located on the inside of the dumb-waiter shaft E and are secured to the lintel E', as plainly shown in Fig. 1, the corresponding rope C passing loosely through the circular opening formed by the yoke and roller, the latter being located toward the lintel, so that when the operator pulls on the rope and draws the same partly into the opening E<sup>2</sup>, as shown in Fig. 1, then the rope is in firm contact with the roller B and rotates the same to reduce the friction between the rope and the roller to a minimum, thus allowing the operator to hoist or lower the cage and its load with great ease and without exerting much physical force.

It will be seen that by the arrangement described the rope is not chafed to any great extent, and hence the life of the rope is prolonged, and as the rope does not come in contact with the wooden lintel E' it does not cut into the same, and hence the rope does not become filled with fine splinters injurious to the hands of the operator, as is so frequently the case with dumb-waiters as heretofore constructed.

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

1. A rope-guide, comprising a yoke having flanged and apertured ends, the said ends being of different thicknesses, an apertured

block fitting on the thinner flange, and a roller mounted in the said block and the thicker flange, as set forth.

2. A rope-guide comprising a yoke, having  
5 a segmental yoke-body, a base-block integral with one end of the yoke-body, a flange integral with the other end of the yoke-body, a detachable base-block fitting on the said flange, the base-blocks and flange being aper-  
10 tured, and a roller having a concave periph-

eral face and journaled in the base-blocks, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM GRANT POULSON.

Witnesses:

FRANK C. POULSON;  
GEORGE F. QUINN.