

# UNITED STATES PATENT OFFICE.

ALFRED B. ARNOLD, OF CHICAGO, ILLINOIS.

## CABLE-CARRIER.

SPECIFICATION forming part of Letters Patent No. 414,481, dated November 5, 1889.

Application filed August 5, 1889. Serial No. 319,840. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED B. ARNOLD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Cable-Carriers, of which the following is a specification.

My invention relates to that class of metal cable-carriers applied particularly to cable roads, having their grooved guiding-peripheries formed to receive a flexible liner constructed of a combination of wood and rubber. Its object is to provide a durable and flexible or yielding wearing-surface whereon the cable rests, thereby subjecting the carrier and its journals to less shock and materially reducing the chafing or abrading resistance to the cable, and also means whereby the lining is removably secured to the carrier. I attain these objects by the arrangement shown in the accompanying drawings, in which—

Figure 1 is a side elevation of the cable-carrier, partly in section; and Fig. 2 is an end elevation of the same, half of which is a section through line *x x*. (See Fig. 1.)

Similar numbers refer to similar parts throughout the several views, in which—

1 designates the inclined or V'd lip integral with the liner-channel 2, said channel being formed to receive the liner-blocks 3, (preferably of wood,) the cushion-blocks 4, (preferably of rubber,) and the annular cushion 5, (also preferably of rubber.)

6 designates the annular follower, having the integral inclined or V'd lip 7, similar to and corresponding with that of 1. Said follower, loosely encircling the lip 8 of the rim 9, is removably secured thereto by the clamping-bolts 10, thus securing and holding the heretofore-mentioned liner 3 and cushions 4 in their positions concentric with the rim 8 of the carrier.

11 designates the inclined spokes, (preferably of wrought-iron,) secured at their outer extremities in the usual manner to the rim-bosses 12 and at their inner ends to the bosses 13, integral with the hub 14.

The journal-shaft 15 may be either secured

to the hub by a key, set-screw, or other suitable method; but I prefer to insert the shaft and the spokes in the mold previous to pouring the metal therein, thereby uniting the rim and hub to the spokes and the shaft. The spokes, however, may be of the same material as the hub and rim of the carrier and cast integral therewith.

I prefer to insert the blocks 3 in the channel 2 with the grain radial to the carrier and approximately perpendicular to the line of motion of the cable.

It is obvious that a cable-carrier having a lined peripheral guiding-groove constructed in the manner described prevents to a great degree the excessive wear of the cable by chafing and the abrasion of the liners by the friction of the cable thereon. The carrier and its journals, owing to the elasticity of its liner, is also rendered more durable and less susceptible to breakage by shock consequent upon the cable being permitted to drop suddenly on the periphery of the carrier.

I am aware that previous to my invention cable carriers or pulleys having liners of wood or material of a similar nature have been used. This I do not claim, broadly, as my invention; but

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

1. A cable-carrier having a peripheral liner constructed of blocks of wood and layers of elastic material alternately arranged, and an annular elastic cushion on which the peripheral liner rests, substantially as and for the purpose described.

2. In a cable-carrier, the combination, with the rim 9 and its follower 6, of the liner-blocks 3 and 4 and the annular flexible cushion 5, on which the said blocks 3 and 4 rest, substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ALFRED B. ARNOLD.

Witnesses:

T. R. BELL,  
PAUL HOUGH.

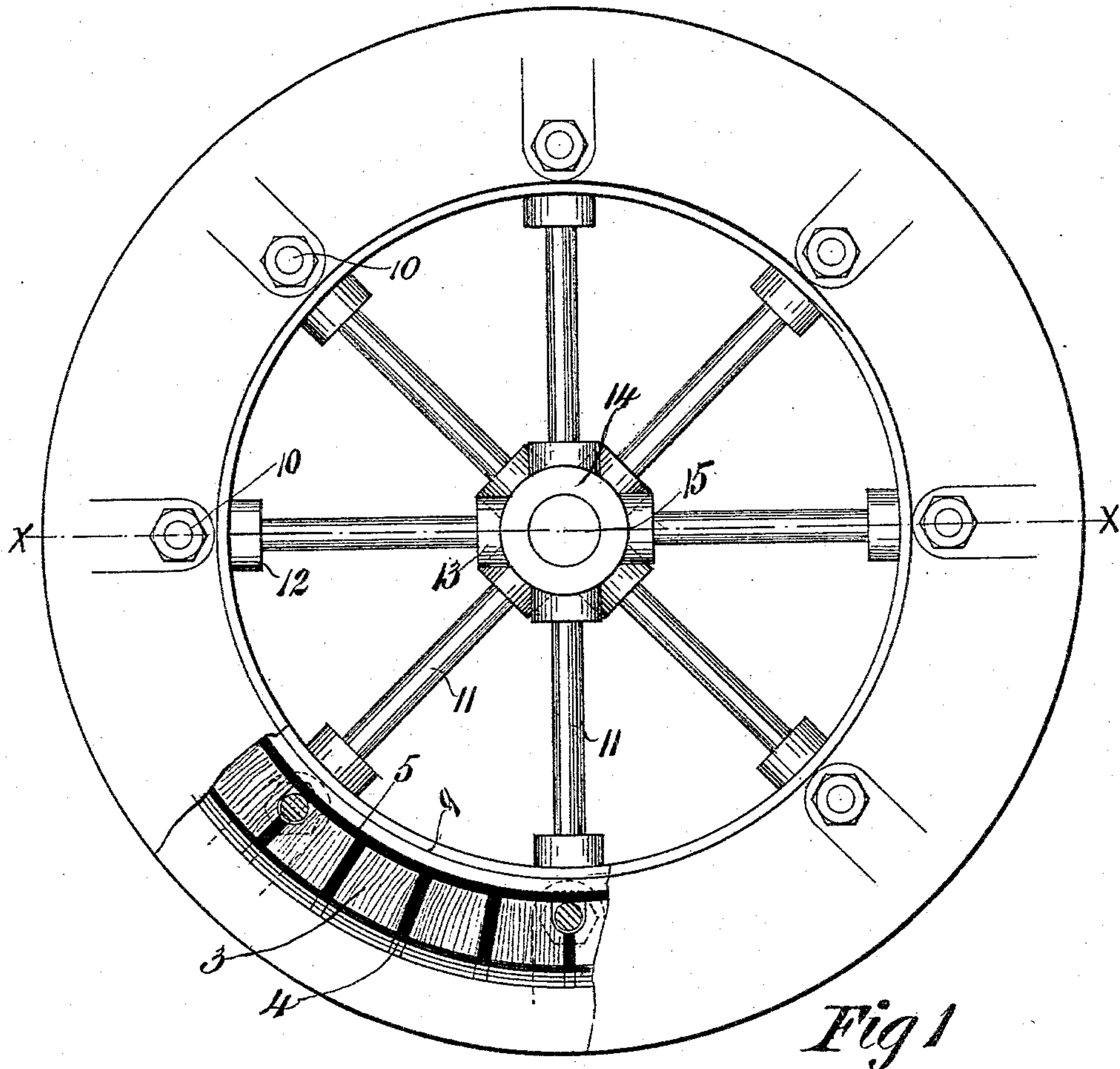


(No Model.)

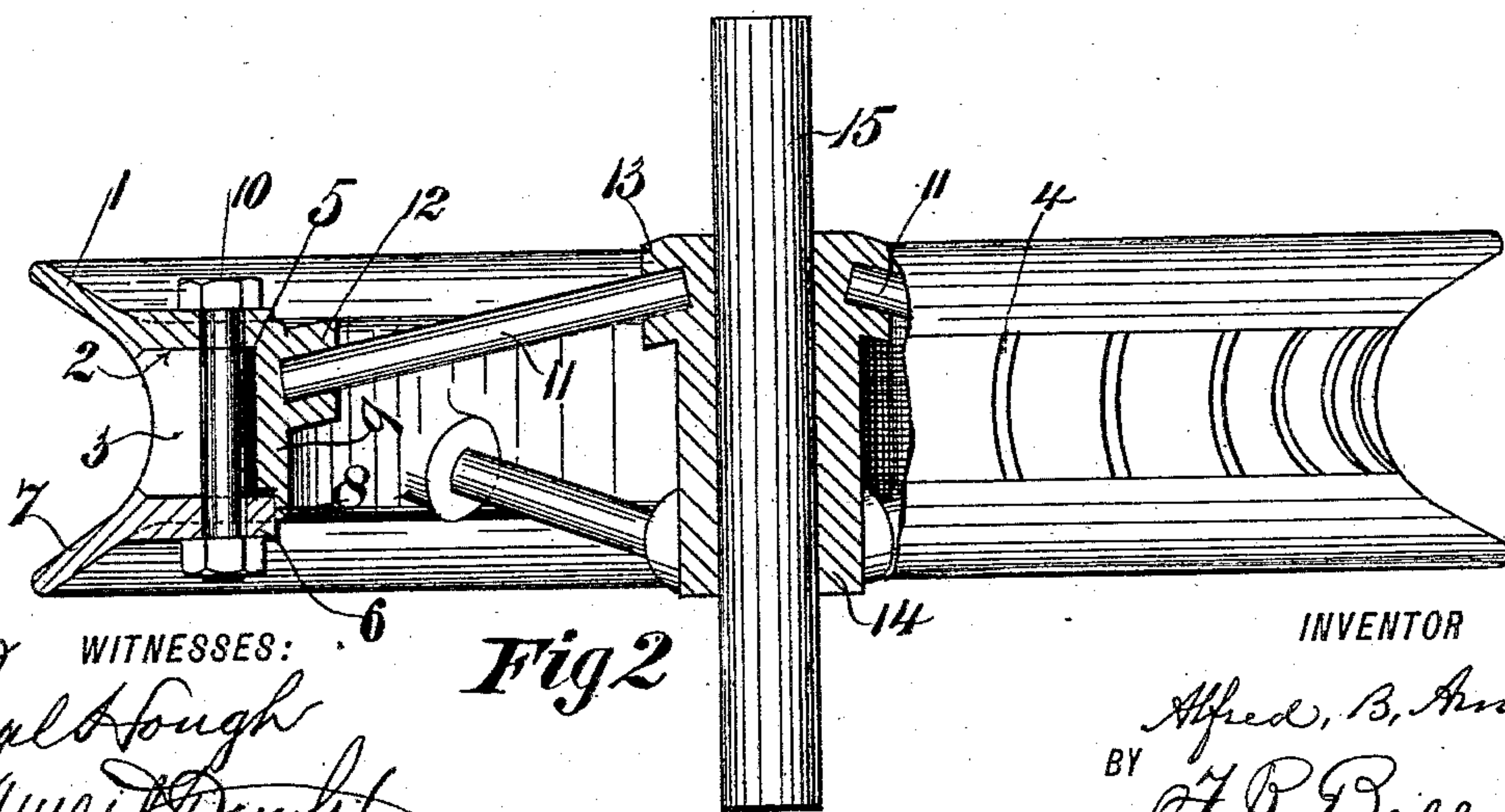
A. B. ARNOLD.  
CABLE CARRIER.

No. 414,481.

Patented Nov. 5, 1889.



*Fig 1*



*Fig 2*

WITNESSES:

*Paul Hough*  
*James Wright*

INVENTOR

*Alfred B. Arnold*  
BY *J. R. Rice*  
ATTORNEY