Oct. 20, 1925. 1,557,769

F. F. PALMORE

CORD ARM

Filed Aug. 22, 1925

Fig. 1.

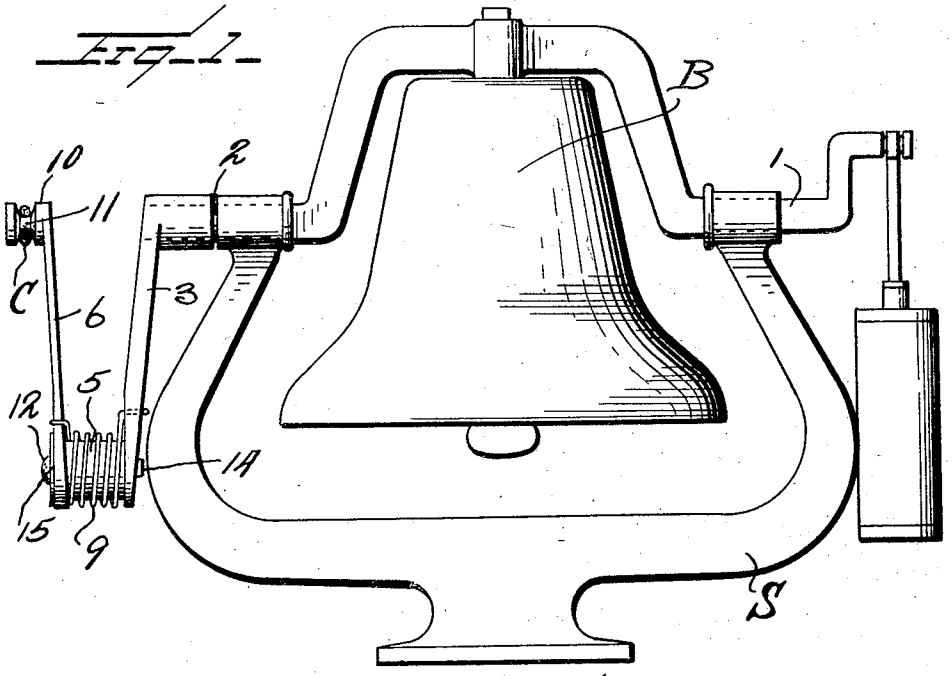


Fig. 4.

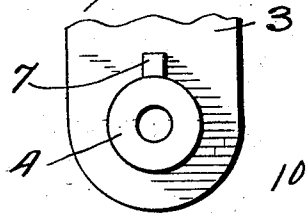


Fig. 6.

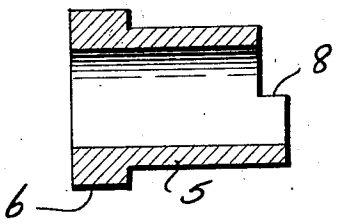


Fig. 2.

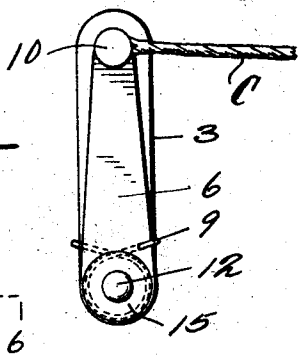


Fig. 5.

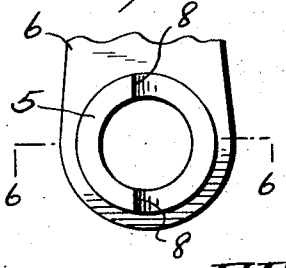
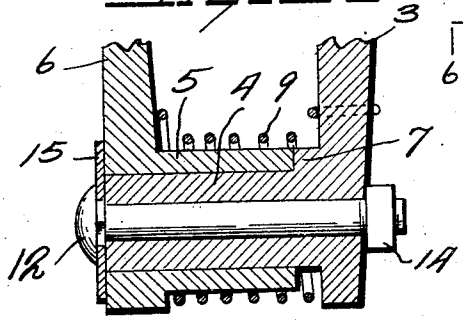


Fig. 3.



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Patented Oct. 20, 1925. 1,557,769

UNITED STATES PATENT OFFICE.

FREDERICK F. PALMORE, OF EL RENO, OKLAHOMA.

CORD ARM.

Application filed August 22, 1925. Serial No. 51,856.

To all whom it may concern:

Be it known that I, FREDERICK F. PALMORE, a citizen of the United States, residing at El Reno, in the county of Canadian and State of Oklahoma, have invented certain new and useful Improvements in Cord Arms, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in cord arms and has relation more particularly to a device of this general character especially adapted and designed for use in connection with a fluid operated locomotive bell. Air bell ringers are now in general use although it is required that a bell cord be provided as the air bell ringer will not every time start the bell, and it is an object of the invention to provide a bell cord arm which may be readily employed to start the bell and which operates to maintain substantially taut the cord during the period the air bell ringer is operating so that the cord will not jerk and flap around with the liability of breaking.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved cord arm whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:—

Figure 1 is a view in elevation illustrating a bell cord arm constructed in accordance with an embodiment of my invention and in applied position, the coacting bell and operating means being shown in somewhat a diagrammatic form;

Figure 2 is a view in side elevation of the arm unapplied;

Figure 3 is an enlarged fragmentary sectional view taken through the device at the pivoted portions of the rock arm and coacting swinging arm;

Figure 4 is a fragmentary view in elevation of the outer or free end portion of the rock arm;

Figure 5 is a fragmentary view in elevation of the pivoted end portion of the swinging arm;

Figure 6 is a sectional view taken substantially on the line 6—6 of Figure 5.

As disclosed in the accompanying drawings, S denotes a bell stand providing a mounting for the bell B, one of the bearings 1 for the bell having operatively engaged therewith an air bell ringer of any conventional type while the opposite aligned bearing 2 for the bell has operatively connected thereto a rock arm 3. The outer end portion of the rock arm 3 is provided with a laterally disposed pin 4 which is telescopically received within a laterally disposed tubular member 5 carried by an end portion of a second arm 6 whereby the arms 3 and 6 are capable of lateral swinging movement. The arm 6 has swinging movement independently of the arm 3 through substantially 180°, said extent of movement of the arm 6 being limited by the outstanding stop 7 carried by the arm 3 and coacting with the diametrically opposed stops 8 carried by the adjacent end of the tubular member 5, said arm 6 when at the limit of its movement in one direction overlying the arm 3 and in parallelism therewith. The arm 6 is normally maintained in this position by the coil spring 9 surrounding the member 5 and having its extremities in requisite engagement with the arms 3 and 6.

The free end portion of the arm 6 is provided with an outstanding member 10 provided therearound with a circumferential groove 11 in which an end portion of the bell cord C is engaged, said member 10 being aligned with the bearing 2 so that during the period the bell is operated by the air bell ringer, the cord C is substantially free of any movement and thereby effectively maintained taut. This is of advantages as the cord C is not jerked or flapped around when the air bell ringer is in use and thus eliminating the possibility of the cord C being broken.

When it is desired to use the cord C to start the bell B, initial pull on the cord will swing the arm 6 against the tension of the spring 9 until the stop 7 comes into contact with a second stop 8 whereupon the arms 3 and 6 will have unitary swinging movement in one direction. When pull upon the cord

C is released, the arm 6, under the influence of the spring 9, will automatically return to its first or normal position.

The arms 3 and 6 are maintained in desired assembled relation through the medium of a bolt 12 extending axially through the pin 4 and held in position by a conventional nut 14, the head of the bolt overlying the outer end of the pin 4 and having interposed therebetween and the adjacent portion of the arm 6 the washer 15, said washer being of such diameter as to have direct contact with the outer face of the pivoted portion of the arm 6.

From the foregoing description it is thought to be obvious that a bell cord arm constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:—

1. In combination with a bearing for a bell, an arm engaged with said bearing, a second arm, means for pivotally connecting said arms one to the other for relative swinging movement, said second named arm normally overlying the first named arm, and means for maintaining the second arm in such normal position, said second arm being provided with means substantially aligned with the bearing for the bell when the second arm is in its normal position for attaching a bell cord thereto.

2. In combination with a bearing for a bell, an arm engaged with said bearing, a second arm, means for pivotally connecting said arms one to the other for relative swinging movement, said second named arm normally overlying the first named arm, means for maintaining the second arm in such normal position, said second arm being provided with means substantially aligned with the bearing for the bell when the second arm is in its normal position for attaching a bell cord thereto, and means for positively limiting relative swinging movement of the arms in either direction.

3. In combination with a bell, a rock arm operatively engaged therewith, a second arm pivotally connected with the rock arm, said second arm being provided with means for attaching a bell cord therewith, means for normally maintaining the second arm in overlying relation with respect to the first named arm, both of said arms being provided with coacting means whereby the second named arm has limited swinging movement in one direction relative to the rock arm when pull is imposed upon said second arm.

In testimony whereof I hereunto affix my signature.

FREDERICK F. PALMORE.