F. A. WEST.

ADJUSTABLE PULLEY.

APPLICATION FILED OCT. 4, 1920.

1,395,884.

Patented Nov. 1, 1921.

Fig. 1.

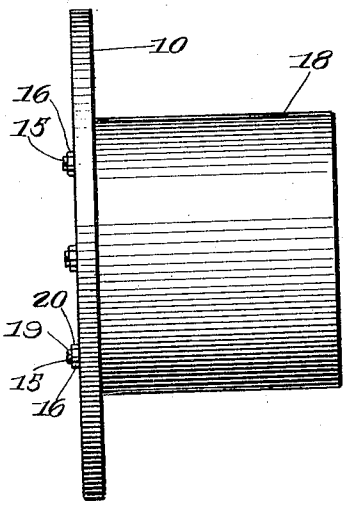


Fig. 2.

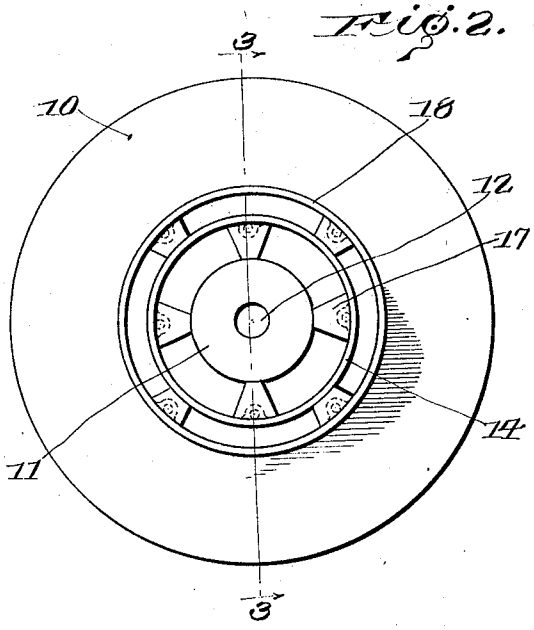


Fig. 3.

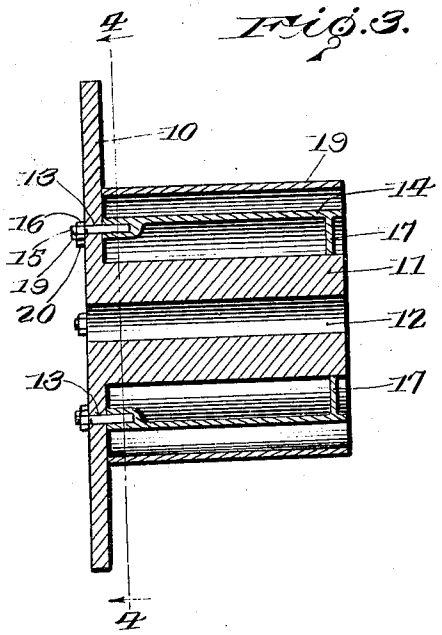
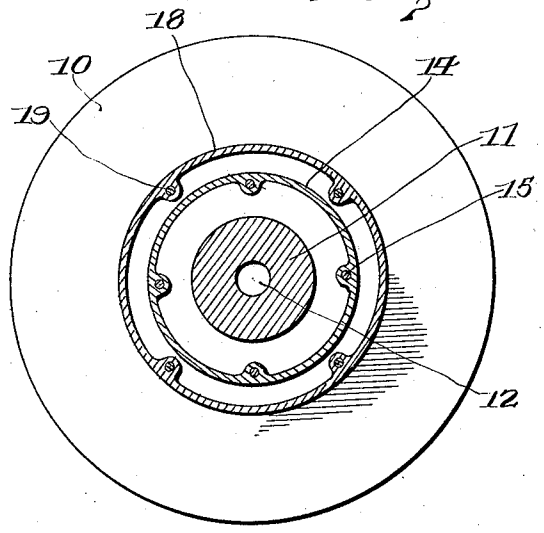


Fig. 4.



Witness.
James F. FitzGibbon.

Inventor
Frank A. West.
By Alexander & Alexander
Attorneys

UNITED STATES PATENT OFFICE.

FRANK A. WEST, OF NEWBURG, MAINE.

ADJUSTABLE PULLEY.

1,395,884. Specification of Letters Patent. Patented Nov. 1, 1921.

Application filed October 4, 1920. Serial No. 414,584.

To all whom it may concern:

Be it known that I, FRANK A. WEST, a citizen of the United States, residing at Newburg, in the county of Penobscot, State of Maine, have invented certain new and useful Improvements in Adjustable Pulleys; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains, to make and use the same.

This invention relates to new and useful improvements in pulleys and particularly to adjustable pulleys.

One object of the invention is to provide a pulley made of novelly constructed telescoping sections whereby the pulley can be made larger or smaller, in diameter, according to the speed desired.

Another object resides in the specific construction of the pulley sections whereby they are firmly connected together and to the base flange thereof.

Other objects and advantages will be apparent from the following description when taken in connection with the accompanying drawing.

In the drawing:

Figure 1 is a side elevation of an adjustable pulley made in accordance with the invention.

Fig. 2 is an end view of the same.

Fig. 3 is a vertical longitudinal central sectional view through the pulley.

Fig. 4 is a vertical transverse sectional view through the pulley on the line 4—4 of Fig. 1.

Referring particularly to the accompanying drawing 10 represents the base flange of the pulley which is in the form of a disk, and to the center of one face of the disk is secured the core or smallest portion of the pulley, as shown at 11. Both the core and flange are centrally apertured at 12 for the reception of an axle or shaft, not shown. Formed in the disk, in circular lines concentric with the center thereof, are the plurality of series of openings 13.

Removably disposed on the core 11 is a hollow drum 14 which forms one section of the pulley. On the inner end of the drum are formed the series of threaded studs 15 which enter certain of the openings 13 of the disk, nuts 16 being then engaged on the studs, at the other face of the disk, to hold the drum rigidly in position. It will be noted that the drum is considerably larger in its inner diameter than the exterior diameter of the core, and to permit the drum to be disposed in proper concentric relation about the core, the outer end of the drum is formed with a plurality of lugs 17 which extend radially inward and contact with the exterior face of the core. Disposed concentrically around the drum 14 is a second larger drum 18, the inner end of which is also formed with threaded studs 19 for engagement through the next outer series of openings 13 in the disk, nuts 20 being engaged on these studs. The outer end of the drum 18 is formed with the inwardly extending lugs 21 which contact with the outer face of the drum 14, so that the said drum 18 is properly spaced from the drum 14, and all parts of the drum 18 equally spaced from the drum 14. If desired more drums, similarly formed, and attached to the disk 10, may be disposed on the other drums, whereby the size of the pulley may be greatly increased, and by removing the drums the diameter of the pulley decreased, thus permitting the operator to change the size of the pulley and thus regulate the speed of the machine with which the pulley is used.

It will be noted that the drums are in shell formation, thereby greatly reducing the cost, due to the economy of metal used therein, the lugs at the outer ends of the sections or drums serving to hold the drums in rigid spaced relation to the other drums.

What is claimed is:

A pulley comprising a base disk having a central core and a plurality of circular series of openings arranged concentrically with relation to the core, a drum disposed on the core and having studs on its inner end engaged in certain of said openings and inwardly extending lugs on its outer end engaging with the outer face of the core to space the drum therefrom, and a second drum engaged on the first drum and having studs on its inner end engaged in other openings of the disk and lugs on its outer end engaged with the outer face of the first drum.

In testimony whereof, I affix my signature, in the presence of two witnesses.

FRANK A. WEST.

Witnesses:

F. BAXTER LUCE,

MARTIN Z. NEALLY.