To all whom it may concern:

Be it known that we, ALBERT N. SPANGELO, a citizen of the King of England, residing at Darlingford, in the Province of Manitoba, Dominion of Canada, and FREDERICK O. SPANGELO, a citizen of the United States, residing at Concrete, in the county of Pembina and State of North Dakota, have invented certain new and useful Improvements in Belt-Applying Devices; and we do declare the following to be 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 improvements in devices for applying belts to pulleys, band wheels and the like and has for its main object to provide a simply constructed article which may be applied to wheels having rims of various widths.

A further object, in carrying out the above end, is to provide locking means whereby a movable jaw may be locked in adjusted position and to construct this means in such a manner as to allow a belt to exert a tightening action thereon.

Yet another object is to construct the entire device in the most simple manner consistent with its proper operation.

With the above and minor objects in view, the invention resides in certain novel features of construction and combination herein described and claimed and shown in the drawings wherein:—

Figure 1 is a perspective view of a pulley showing the application of the invention in applying a belt thereto; Fig. 2 is a transverse section through the rim of the pulley showing more particularly the manner in which the belt applying device is attached thereto; Fig. 3 is an enlarged section, partly in elevation and taken substantially upon the line 3—3 of Fig. 2; and Figs. 4, 5, and 6 are transverse sections taken on the lines 4—4, 5—5, and 6—6 of Fig. 2 respectively.

In the accompanying drawings, a pulley P is shown which as mounted upon the usual shaft S and whose rim R is to receive thereon a belt B. For the purpose of facilitating the application of the belt B, the device, indicated broadly by the numeral 1 is provided, said device comprising an elongated cylindrical shank 2 having one of its ends turned laterally to provide a fixed jaw 3 having an inwardly extending nose 4 formed on its free end, while the opposite end of the shank 2 is externally threaded as indicated at 5 and passed through the head 6 of a movable jaw member 7, a bore 8 being provided through said head and equipped with internal screw threads interengaging with the threads 5. For reasons to become clear, it is not necessary to form a nose upon the free end of the jaw 7 but it becomes expedient to provide a nut 9 which is likewise threaded upon the threads 5 whereby said movable jaw may be locked in its adjusted positions. In most cases it likewise becomes expedient to provide a protecting sleeve or tube 10 formed integrally with the outer face of the nut 9, said tube encircling the threaded end of the shank 2 and thereby protecting the belt B against injury when being applied.

With the parts as above described, the shank 2 is positioned transversely upon the periphery of the rim R with the nose 4 contacting with one inner curved edge thereof, the movable jaw 7 is turned upon the threads 5 until said jaw contacts with the opposite edge of the rim with which the jaw 3 contacts and lastly, the nut 9 is turned upon said threads 5 and forced into binding contact with the head 6 by means of a wrench or other suitable tool. One of the looped end portions of the belt B may now be engaged with the sleeve 10 as seen in Fig. 1 and a portion of said belt is forced, by any suitable means, onto the periphery of the rim R. The pulley P is now rotated, thus causing the belt to be engaged with the rim by the time a complete revolution of the pulley has been effected. With the belt in proper position upon the pulley, the device 1 may be removed, thus allowing the periphery of the rim R to be unobstructed for the passage of the belt B thereof.

When the belt B is being applied as shown in Fig. 1, the tendency of the upper stretch B' thereof is to rotate the sleeve 10 in a clockwise direction thereby retaining the nut 9 in contact with the head 6 and locking the latter against possible movement.

From the foregoing description, taken in connection with the accompanying drawings, it will be seen that an extremely simple device has been provided for carrying out the objects of the invention yet one which will readily perform the functions for which it is designed.

Having thus described our invention,
what we claim as new and desire to secure by Letters Patent is:

1. A belt applying device comprising a shank having a relatively fixed shank on one of its end portions, its opposite end portion being threaded, a movable jaw having a bore provided with screw threads interengaged with the threads on said shank, a lock nut likewise engaged with the threads on said shank and adapted to bear against said movable jaw to lock the same in adjusted position, and a sleeve united at one end with said lock nut, said sleeve encircling the threaded end portion of said shank.

2. A belt applying device comprising a shank having a relatively fixed jaw formed on one of its end portions, its opposite end portion being threaded, a movable jaw having a bore provided with screw threads interengaged with the threads upon said shank, and a sleeve encircling the threaded end of said shank and having a portion provided with internal screw threads interengaged with the threads on said shank, said sleeve being designed to be turned into binding contact with said movable jaw to lock the same in adjusted position.

3. A belt applying device comprising a shank having one of its end portions provided with screw threads, a laterally projecting jaw formed integrally with the opposite end of said shank and having an inwardly extending nose, a head having a bore therein provided with screw threads interengaged with the threads on said shank, a relatively movable jaw integrally united with said head and designed to coact with the rigid jaw for clamping the shank upon a pulley, a lock nut threaded upon said shank, and bearing against said head, and a guard sleeve integrally united at one end with said nut, said sleeve encircling the threaded end portion of said shank.

4. A belt applying device comprising a shank having a fixed jaw at one end and a movable jaw at the other end, a guard sleeve surrounding the shank to be moved when the last named jaw is moved and means for holding said movable jaw in adjusted position on said shank.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

ALBERT N. SPANGELO.
FREDERICK O. SPANGELO.

Witnesses:
D. J. LARSON,
H. C. DUNLEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."