June 9, 1925.

1,540,760

O. C. CARDIN

ASSEMBLING DEVICE

Filed June 3, 1924

Fig. 1.

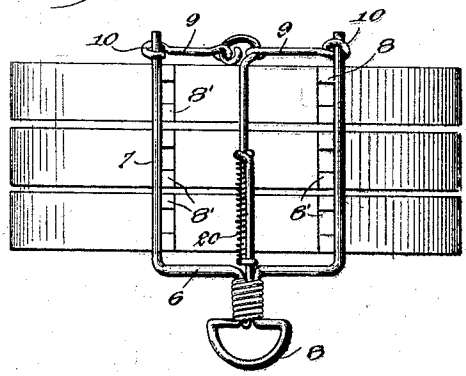
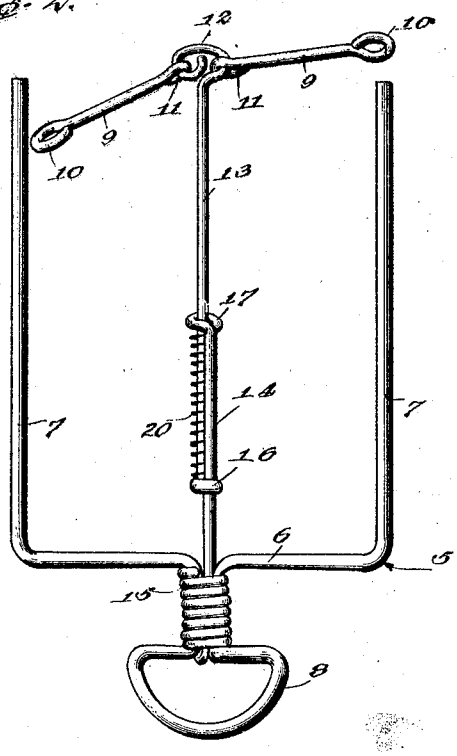


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

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ASSEMBLING DEVICE.

Application filed June 3, 1924. Serial No. 717,611.

To all whom it may concern:

Be it known that I, OSCAR C. CARDIN, a citizen of the United States, and a resident of Valentine, in the county of Cherry and State of Nebraska, have invented certain new and useful Improvements in Assembling Devices, of which the following is a specification.

This invention relates to an assembling device, and is especially designed for use in holding the transmission bands in position on the transmission drums of a "Ford" automobile during the application of the cover to the transmission casing.

It is frequently necessary to replace or to remove for various purposes the transmission bands from a "Ford" automobile. The assembly of transmission bands presents a rather difficult problem since the bands must be held in proper position on the drums while the transmission cover is applied and bolted down. Under the present practice a wire is wrapped around the lugs of the transmission bands and has its ends spliced or intertwisted and while this expedient serves the purpose in a manner, it involves a tedious and time consuming operation in order to effect removal of the wire since it is necessary to work in very crowded and awkward quarters to untwist the ends of the wire and remove the same from the lugs. Moreover, it some times happens that a small piece of wire is broken off from the piece employed to secure the lugs in position and such small piece of wire falls down in the transmission casing and if not removed will work serious injury to the engine. The removal of a small piece of wire from the transmission casing necessitates the taking down of practically the entire engine.

The object of the present invention is to provide a simple, practical and reliable device which greatly facilitates the assembling of the transmission band and transmission cover, the device operating to hold the transmission bands in proper position on the transmission drum while the transmission cover is being applied and bolted down and yet being readily and easily removable when the operation has been completed.

Other objects and advantages of the invention reside in certain novel features of the construction, combination and arrangement of parts which will be hereinafter more fully described and particularly pointed out in the appended claims, reference being had to the accompanying drawings forming part of this specification, and in which:

Figure 1 is a top plan view, showing the device cooperatively engaged with the lugs of the transmission band; and

Figure 2 is a detail perspective view of the device.

Referring to the drawings it will be seen that the assembling device comprises a holding frame, designated generally at 5, and including a body portion 6 having spaced parallel arms 7 extending therefrom. Intermediate its ends the body portion 6 has a handle 8 integrally formed therewith. The body portion 6, the legs 7 and the handle 8 may all be formed from a single length of metal rod having sufficient resiliency to enable the parts to be bent and formed as shown while possessing sufficient rigidity in assembly to enable the device to carry out its intended function. The arms 7 are designed to engage the lugs 8′ of the transmission band to hold these bands in proper position on the transmission drums, as will be hereinafter more fully described.

The body portion 6 of the holding frame connects the arms 7 at one end and thus prevents lateral displacement of the arms at such end. In order to hold the free ends of the arms against lateral displacement when the device is assembled with the transmission bands, a pair of links 9 are provided and are formed at their ends with eyes 10 and 11. The eyes 11 are interengaged with an eye 12 formed at the upper end of a shiftable rod 13. The rod 13 is shiftably mounted on a fixed rod 14 having its lower end twisted around and secured to the shank of the handle 8, as indicated at 15. The shiftable mounting of the rod 13 on the rod 14 may be effected by forming an eye 16 on the rod 13 and slidably fitting the eye 16 on the rod 14 and also by forming an eye 17 on the rod 14 and slidably fitting the eye 17 on the rod 13.

A coil spring 20 encircles the shiftable rod 13 and abuts the eye 16 at one end and the eye 17 at its opposite end so as to tend to retract the rod 13.

In using this device, the arms 7 are engaged with the lugs 8′ of the transmission bands, the transmission bands having been

properly positioned on the transmission drums. When effecting such engagement of the arms 7 with the lugs 8′, the eyes 10 of the links 9 are disengaged from the ends of the arms 7. However, after the arms 7 have been engaged with the lugs 8′, the eyes 10 of the links 9 are engaged with the projecting ends of the arms 7, as shown in Figure 1 so as to provide a positive means for preventing the free ends of the arms 7 from springing away from each other. With the device so positioned, the transmission bands are securely held in proper position and the transmission cover may be applied and bolted down. The removable plate having been taken from the transmission cover, the device may be readily removed by simply grasping the handle 8 and pulling the device through the opening in the transmission cover, the links 9 being automatically disengaged from the arms 7 and the arms 7 sliding along the lugs 8′ to permit of this release.

From the foregoing it will be seen that the present invention provides a simple, practical and comparatively inexpensive device which saves time, labor and annoyance for mechanics and motorists.

I claim:

1. In an assembling device for use in holding the transmission bands in position on the transmission drums, a holding frame including a body portion having a handle, a pair of arms extending from the body portion and engagable with the lugs of the transmission bands, and readily releasable means cooperable with the outer ends of the arms for maintaining them engaged with the lugs, said readily releasable means comprising a rod fixed to the frame, a shiftable rod mounted on said fixed rod, a spring for drawing said shiftable rod inwardly, and links carried by the shiftable rod and having eyes engageable with the outer ends of the arms.

2. In an assembling device of the character described, a substantially U-shaped frame including a body portion, a pair of arms extending from the body portion, and readily releasable means cooperable with the outer ends of the arms for holding them against lateral movement, said means including a pair of links having eyes engageable with the arms.

3. An assembling device substantially as described comprising a holding frame having arms free at one end and adapted to engage with the lugs of transmission bands, a rod shiftable longitudinally between said arms, and releasable means projecting laterally from said shiftable rod and cooperable with the arms of the main frame for holding the arms against lateral movement.

OSCAR C. CARDIN.