

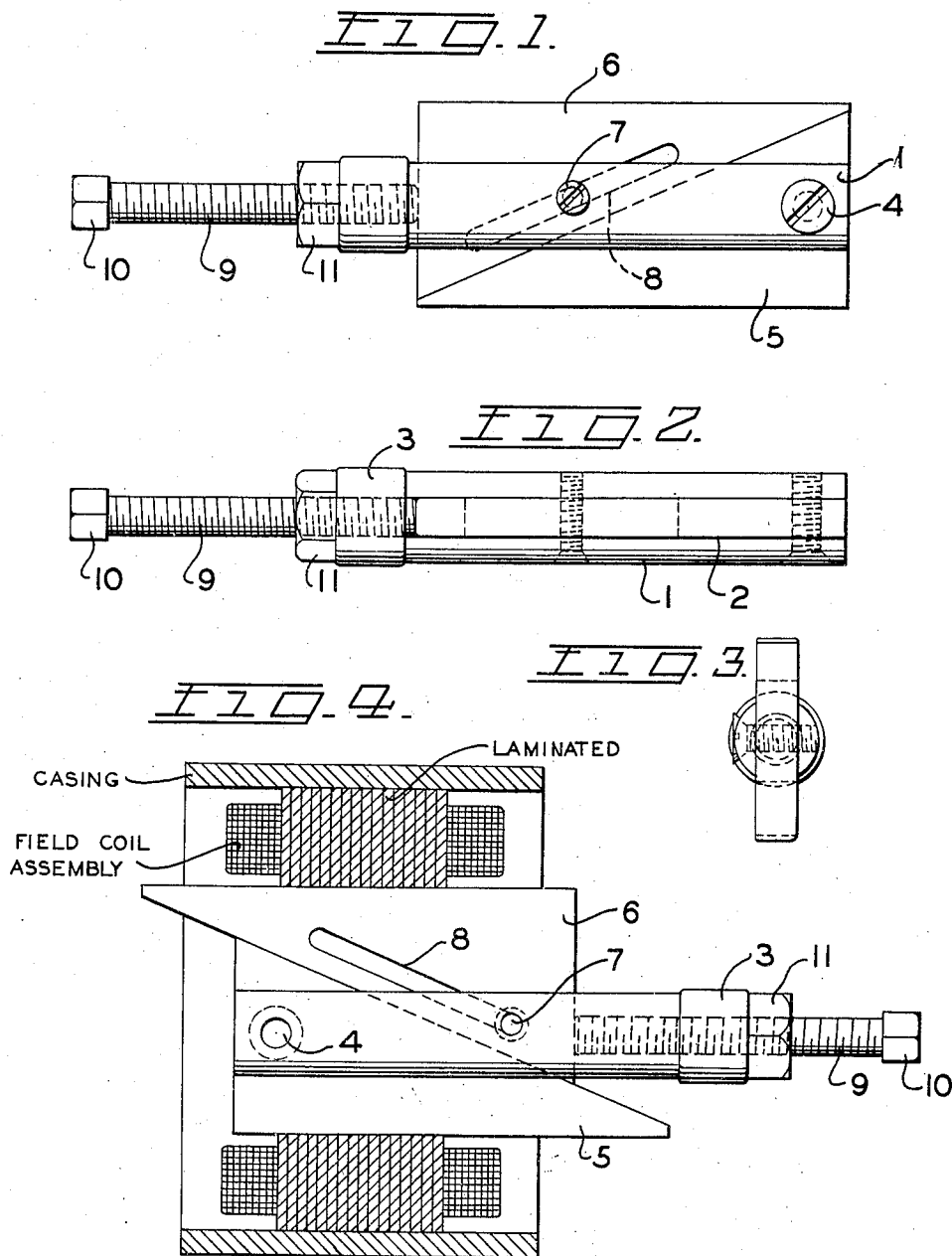
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FIELD COIL ASSEMBLY PULLER

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FIELD COIL ASSEMBLY PULLER

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1 Claim. (Cl. 294—96)

This invention relates to tools of the type known as pullers, and its general object is to provide a tool of that character which is primarily designed for removing or pulling field coil assemblies and the like from the housings of electric motors and the like.

A further object is to provide a puller of the character set forth that is capable of performing its intended function with minimum effort on the part of the user and without damage to the parts of the motor or windings.

Another object is to provide a puller that is simple in construction, inexpensive to manufacture, and extremely efficient in operation, use and service.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a side elevation of the puller which forms the subject matter of the present invention.

Figure 2 is a top plan view thereof.

Figure 3 is an edge elevation.

Figure 4 is a view partly in section illustrating my puller in use.

Referring to the drawing in detail, and particularly to Figure 4, it will be noted that I have illustrated my puller applied to the field coil of a motor for the purpose of pulling or removing the same from its housing, and the puller includes a rod or bar 1 of any suitable length, with a slot 2 extending transversely through and along the longitudinal center thereof from one end and for a portion of its length. The remaining portion of the bar has a threaded bore extending through its longitudinal center from the opposite end of the bar to the slot for communication with the latter, and the outer end of the bored portion is enlarged to provide an abutting collar 3.

Secured within the slot by a screw bolt 4 is a wedge member 5 having its inclined face disposed diagonally of the slot, and cooperating with the wedge member 5 is a companion wedge member 6 slidably mounted in the slot and guided accordingly with its inclined face engaged with the inclined face of the member 5, by a screw bolt 7 that bridges the slot and disposed through a slot 8 extending parallel with the inclined

face of the member 6, as best shown in Figure 4.

Threadedly mounted in the bore of the bar is a set screw 9 having a square cornered head 10 on its outer end, and its inner end is engaged with the wedge member 6 for moving the same upon rotation of the set screw for disposing the wedge members in clamping engagement with the assembly, as shown.

A lock nut 11 is provided for the set screw 9 to engage the abutting collar 3 for holding the wedge members in clamping association.

When the puller is disposed in expanded or clamping engagement within the field coil assembly as shown in Figure 4, the assembly is ready to be pulled or removed from the housing, and for that purpose, the head of the set screw is secured within a vise, thence by pulling upon the housing, the assembly which is frictionally mounted within the housing can be readily pulled therefrom.

The wedge members or jaws 5 and 6 are shown as being of the same size, but the member 6 may be larger than the member 5, or additional jaws of various sizes may be interchangeably associated with each other so that the puller will be capable of fitting assemblies and the like of various sizes. The outer faces of the wedge members are preferably serrated or roughened so as to set up a positive clamping or gripping action with the assembly or work, as will be apparent.

It will be obvious that the puller can be readily released from the assembly or the like, merely by loosening the lock nut 11 and thence backing the set screw a sufficient distance to allow rearward movement of the wedge member 6 which can be moved accordingly by tapping thereon.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What I claim is:

A puller comprising a rod like member having a slot extending longitudinally thereof from one of its ends for a portion of its length and a bore extending through the longitudinal center of the remaining portion and communicating with the slot, inclined faced companion wedge members mounted in the slot and one of said wedge members having a slot disposed parallel with its inclined face, means secured to the rod member and passing through the slots for con-

necting the slotted wedge member to the rod member for slidable movement, means for securing the other wedge member fixed to the rod member, a set screw threaded in the bore and engageable with the slotted wedge member for adjusting the wedge members in gripping associ-

ation with the work, a square cornered head for the set screw, a collar formed on the outer end of the bored portion, and a lock nut for the set screw and engaged with the collar.

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