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R. C. CURRENCE ET AL

2,620,240

SPINDLE BOLSTER

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Fig. 1

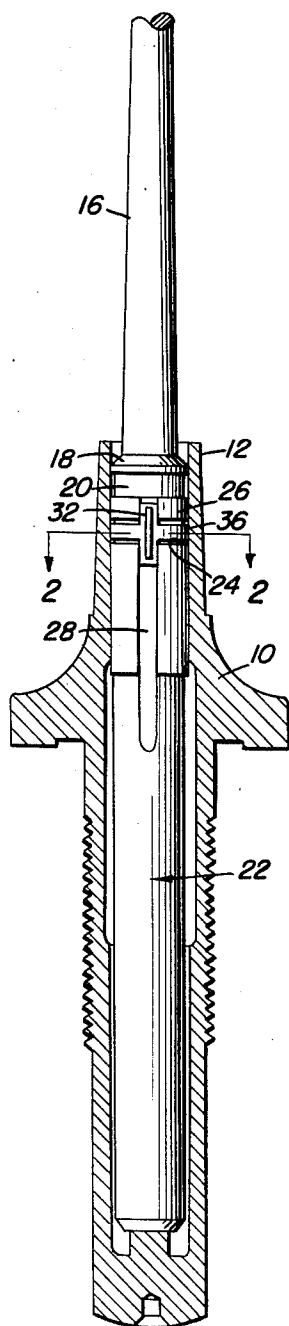


Fig. 2

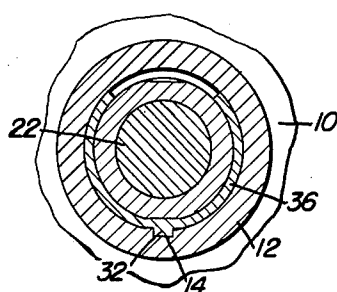
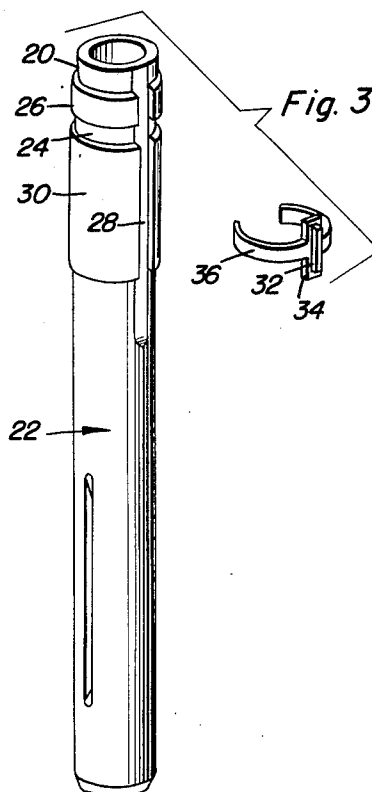


Fig. 3



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SPINDLE BOLSTER

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2 Claims. (Cl. 308—149)

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This invention relates generally to spindle bolster supporting means, and more particularly to a particular bolster construction wherein novel means are provided to hold the bolster against rotation relative to the bolster-receiving base.

A primary object of this invention is to provide means to facilitate the reconditioning of a bolster when the key used to prevent such relative rotation requires replacement. It should be here noted that this key has sometimes been referred to as a pin, in the trade, although the term "key" will be used in this specification. Heretofore, the worn keys were difficult to remove and replace, the bolster being ordinarily shipped to the manufacturer for reconditioning, this reconditioning involving the filing away of the old key, the boring of holes in the bolster, and refitting a new key therein. By the present invention, the bolster is constructed with grooves and a transverse recess or undercut and a split ring of resilient material carrying a plate with a key thereon can be quickly inserted to replace a worn key. Maintenance personnel in the mills can easily replace worn keys and a great saving in time and expense is involved. The worn key construction can be bent out of position and a new one snapped into position in a minute and the bolster is thereby reconditioned.

Another object of this invention is to retain all the benefits involved in the use of conventional keys, and to provide locking means for the spindles, as mentioned above, which can be adapted for use with spindles which are conventional in all other regards, thereby making conversion of old spindles or spindles of otherwise conventional type a matter of comparatively simple machining operations.

And a last object to be mentioned specifically is to provide a device of the character mentioned above which is relatively simple and inexpensive to manufacture, which is safe and convenient to use under all ordinary conditions, and which will give relatively efficient and durable service.

With these objects definitely in view, this invention resides in certain novel features of construction, combination and arrangement of elements and portions as will be hereinafter described in detail in the specification, particularly pointed out in the appended claims, and illustrated in the accompanying drawings which form a material part of this application, and in which:

Figure 1 is a vertical sectional view of a bolster-receiving base, a bolster according to this invention mounted therein, and a portion of a

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spindle, the said bolster and spindle being shown in elevation;

Figure 2 is a horizontal transverse sectional view taken on the line 2—2 in Figure 1; and

Figure 3 is a grouped view of the bolster per se and the key assembly, both parts being shown in perspective.

Similar characters of reference designate similar or identical elements and portions throughout the specification and throughout the different views of the drawing.

Referring now in detail to the drawing, a conventional bolster-receiving base 10 has an upstanding neck portion 12 with an internal longitudinally disposed groove 14, the groove being represented in Figure 2. A spindle blade 16 of conventional character seats within the neck 12, with its collar 18 resting on an upper terminal portion 20 of the bolster, which is generally indicated by the numeral 22. The portion 20 is of reduced diameter.

The bolster is constructed, according to this invention, with a transverse recess taking the form of an annular undercut 24, adjacent the upper end of the bolster and separated from the reduced portion 20 of the bolster by a shoulder 26 of annular form. A superficial, longitudinally disposed groove 28 extends along a considerable portion of the upper part of the bolster 22 and, in the preferred form illustrated, this groove 28 traverses the journal portion 30 as well as the transverse recess or undercut 24 and the shoulder 26.

A key 32 is provided to fit within the internal groove 14 of the bolster-receiving base, this key being integral with a plate 34 and resilient arms 36 extending in opposed relation from each side of the plate 34 and comprising a split ring adapted to fit within the recess or undercut 24, while the plate 34 fits within the portion of the groove 28 extending immediately above and immediately below the recess or undercut 24.

The operation of this invention will be clearly understood from a consideration of the foregoing description of the mechanical details thereof, taken in connection with the above recited objects and the drawing. In recapitulation, it may be added that the resilient arms 36 allow the key assembly comprising the parts 32, 34 and 36 to be snapped out of position on the bolster when the key 32 becomes worn, and a new key assembly can easily be snapped in place and the bolster then replaced in the bolster-receiving base 10, with the key 32 engaged in the internal groove 14. It will be clear that the objects recited above

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are amply achieved by this invention. Further description would appear to be unnecessary.

Having described the invention, what is claimed as new is:

1. A bolster assembly comprising a body having a transverse recess and a shoulder in the upper end portion thereof, a superficial longitudinal groove in the upper end portion transversing said recess and shoulder, a base in which said bolster is disposed, said base having an internal groove, a plate in said longitudinal groove and having curved resilient arms extending from each side thereof and engaging said recess, and a key fixed to and rising from the outer surface of said plate for engaging said internal groove in said base.

2. Means for locking a bolster against rota-

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tion relative to a bolster-receiving base, comprising a flat, rectangular plate having curved resilient arms extending from the mid-portion of each side thereof and comprising a split ring, and a key fixed to and rising from one face of said plate.

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REFERENCES CITED

The following references are of record in the file of this patent:

FOREIGN PATENTS

Number	Country	Date
19,871	Great Britain	1912