June 13, 1950 J. A. WILSON 2,511,612

RESETTING MEANS FOR MULTIPLE BELT REELS

Filed Dec. 22, 1945

FIG. 1

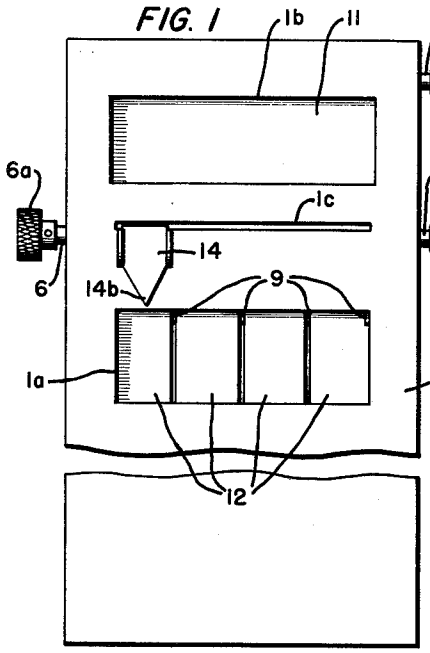
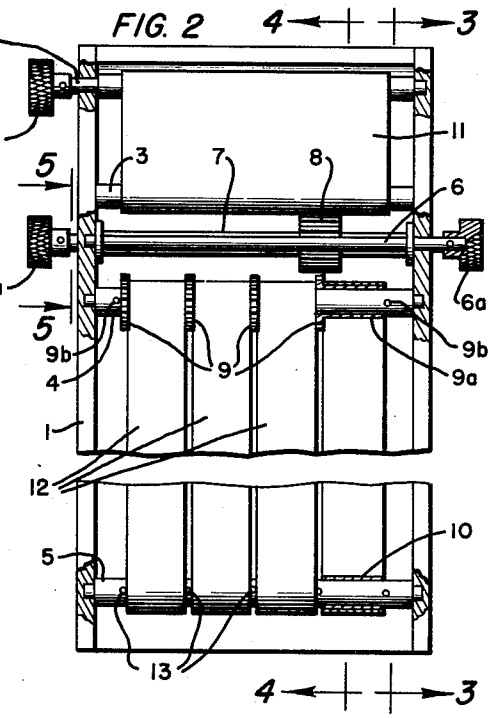


FIG. 2



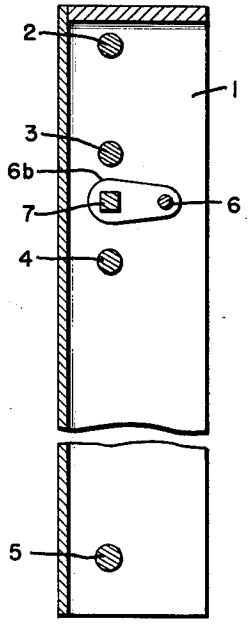


FIG. 3

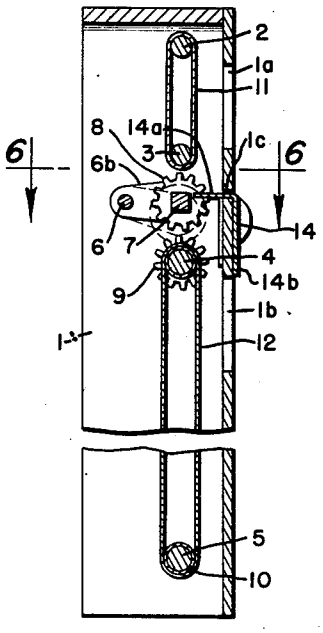


FIG. 4

FIG. 5

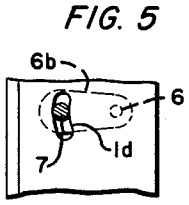
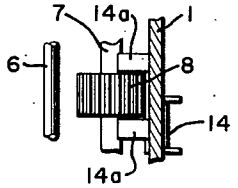


FIG. 6



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RESETTING MEANS FOR MULTIPLE BELT REELS

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4 Claims. (Cl. 40—96)

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My invention relates to a resetting means for multiple belt reels and the objects of my invention are:

First, to provide means of this class which is particularly adapted for use in connection with endless belt educational devices for individually motivating belts thereof in order to present the desired nomenclature according to the subject being taught;

Second, to provide a means of this class which is readily useful in selectively operating any one of a plurality of belt reels as desired;

Third, to provide a means of this class in which indicating means is indexed with the particular belt reel to be operated providing very simple means for resetting various belt reels in order to present the desired indicia;

Fourth, to provide a means of this class in which a plurality of belt reels may be mounted on a common shaft and individually adjusted by rotation thereof in connection with said shaft as desired;

Fifth, to provide a means of this class which is very compact and positive in operation; and

Sixth, to provide a means of this class which is very simple and economical of construction, efficient in its action and which will not readily deteriorate or get out of order.

With these and other objects in view as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawings and to the characters of reference thereon, forming a part of this application in which:

Figure 1 is a fragmentary front elevational view of my resetting means for multiple belt reels; Fig. 2 is a fragmentary rear elevational view thereof showing portions broken away and in section to amplify the illustration; Fig. 3 is a fragmentary longitudinal sectional view taken from the line 3—3 of Fig. 2; Fig. 4 is a fragmentary longitudinal sectional view taken from the line 4—4 of Fig. 2; Fig. 5 is a fragmentary sectional view taken from the line 5—5 of Fig. 2; and Fig. 6 is a fragmentary sectional view taken from the line 6—6 of Fig. 4.

Similar characters of reference refer to similar parts and portions throughout the several views of the drawing.

The frame 1, shafts 2 to 7 inclusive, movable gear 8, gears 9, sleeves 10, belts 11 and 12, pins 13, and the shifting clip 14, constitute the principal parts and portions of my resetting means for multiple belt reels.

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The frame 1 is substantially a box like structure having windows 1*a* and 1*b* therein, through which the belts 11 and 12 may be viewed. The belt 11 is an endless belt positioned over the shafts 2 and 3 and rotatably operated in connection with the frame 1 past the window 1*b* by rotation of the knob 2*a* in connection with the shaft 2. This belt 11 may be used to portray pictorial illustrations. The belts 12 are each positioned over the shafts 4 and 5 and are supported in connection therewith by the sleeves 10 spaced by the pins 13 on the shaft 5. The gears 9, rotatably mounted on the shaft 4, are provided with sleeve portions 9*a* which support the belt 12, all as shown best in Fig. 2 of the drawing. These endless belts 12 are arranged to display literal or numeral characters as desired in certain continuity for indicating or setting forth certain information.

It will be noted that the sleeves 9*a*, in connection with the gears 9, provide spacing means for the belts 12 and that the pins 9*b* extending through the shaft 4 limit the end play of the gears 9 together with said sleeves 9*a*.

It will be here noted that the shafts 2 to 7 inclusive, are provided with reduced diameter end portions forming bearings in the sides of the frame 1, as best illustrated in Fig. 2 of the drawing.

As shown in Fig. 4 of the drawings, each of the gears 9 is provided with teeth arranged to mesh with the teeth of the movable gear 8 when shifted into the dash line position as shown in Fig. 4 of the drawing. This movable gear 8 is slidably mounted in connection with the square in cross section shaft 7 and is engaged at opposite sides by clip portions 14*a* of the shifting clip 14. This shifting clip 14 is provided with a pointer portion 14*b*, as shown in Fig. 1 of the drawing, which is arranged to point to the particular belt 12 which is operated by the gear 9 in alignment with the gear 8. This shifting clip 14, as shown in Fig. 6 of the drawing, maintains the gear 8 in such position that it will mesh with the particular gear 9 operating the belt at the pointer portion 14*b*. This shifting clip 14 is longitudinally movable in connection with the slotted portion 1*c* in the front wall of the frame 1, as shown best in Figs. 1 and 4 of the drawing.

The shaft 6 is provided with extending arm portions 6*b* in which opposite ends of the square in cross section shaft 7 are journaled, it being noted that the opposite ends of the shaft 7 are

round and provide rotatable bearing surfaces in the arms 6b. Opposite ends of the shaft 7, as shown in Fig. 5 of the drawing, are positioned in arcuate slotted portions 1d in conforming relationship to the axis of the shaft 6 which is arranged in fixed rotatable relationship with the frame 1. Thus the shaft 7 is laterally movable about the axis of the shaft 6 when turned by the knob 6a for bringing the gear 8 into engagement with one of the gears 9 as pre-selected by the operation of the pointer portion 14b of the shifting clip 14.

The operation of my resetting means for multiple belt reels is substantially as follows:

When it is desired to rotate the gears 9 for shifting the belt 12, the individual operation of any particular one of the belts 12 may be accomplished by setting the pointer portion 14b of the shifting clip 14 adjacent the particular belt 12. The knob 6a of the shaft 6 is then turned forcing the arms 6b and the shaft 7 laterally, moving the end portions thereof in the slotted portion 1d of the frame 1, bringing to mesh the movable gear 8 with the particular gear 9 in connection with the belt 12 to be moved. The knob 7a of the shaft 7 is then turned rotating the shaft 7 in the arms 6b of the shaft 6 turning the belt 12 to the desired position for indicating the desired indicia through the opening 1a of the frame 1. Thus it is obvious that changes of position of the belts 12 may be made individually for correcting or changing the indicia appearing thereon in continuity through the window 1a which may be related to the pictorial illustration on the belt 11 appearing through the window 1b of the frame 1.

Though I have shown and described a particular construction, combination and arrangement of parts and portions, I do not wish to be limited to the particular construction, combination and arrangement but desire to include in the scope of my invention the construction, combination and arrangement substantially as set forth in the appended claims.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a means of the class described the combination of a plurality of endless belt members, a pair of spaced shafts for supporting said belt members, gears spaced on one of said shafts each individually connected with one of said belts, a laterally movable shaft adjacent said gear means having a movable gear slideably mounted thereon and rotatably fixed relative thereto, means for rotating said shaft and said movable gear, and means for shifting said shaft and said movable gear laterally whereby said movable gear meshes with said gear means in connection with one of said belts.

2. In a means of the class described the combination of a plurality of endless belt members, a pair of spaced shafts for supporting said belt members, gears spaced on one of said shafts each individually connected with one of said belts, a laterally movable shaft adjacent said gear means having a movable gear slideably mounted thereon and rotatably fixed relative thereto, means for rotating said shaft and said movable gear, means for shifting said shaft and said movable gear laterally whereby said movable gear meshes with said gear means in connection with one of said belts, said means for moving said shaft and said movable gear laterally including a second shaft having extending arm portions revolubly supporting the shaft on which said movable gear is longitudinally slideably mounted.

3. In a means of the class described the combination of a plurality of endless belt members, a pair of spaced shafts for supporting said belt members, gears spaced on one of said shafts each individually connected with one of said belts, a laterally movable shaft adjacent said gear means having a movable gear slideably mounted thereon and rotatably fixed relative thereto, means for rotating said shaft and said movable gear, and means for shifting said shaft and said movable gear laterally whereby said movable gear meshes with said gear means in connection with one of said belts, shifting clip means having a pointer portion arranged to index one of said belts and said movable gear with said gear means corresponding to the belt index.

4. In a means of the class described the combination of a plurality of endless belt members, a pair of spaced shafts for supporting said belt members, gears spaced on one of said shafts each individually connected with one of said belts, a laterally movable shaft adjacent said gear means having a movable gear slideably mounted thereon and rotatably fixed relative thereto, means for rotating said shaft and said movable gear, and means for shifting said shaft and said movable gear laterally, whereby said movable gear meshes with said gear means in connection with one of said belts, shifting clip means having a pointer portion arranged to index one of said belts and said movable gear with said gear means corresponding to the belt index, said pointer means including extending portions at opposite sides of said movable gear for engaging the same longitudinally of the shaft on which said movable gear is supported for shifting the same on said shaft.

JACK A. WILSON.

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