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3,380,581

RIBBON SPOOL MOUNTING BRACKET

Filed Dec. 15, 1964

FIG. 1

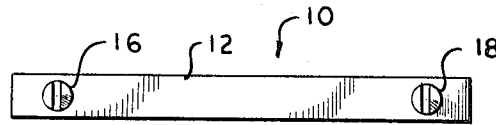


FIG. 2

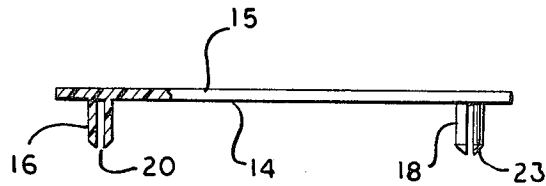
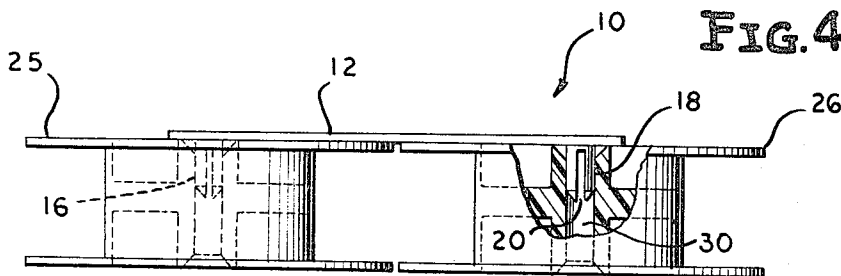
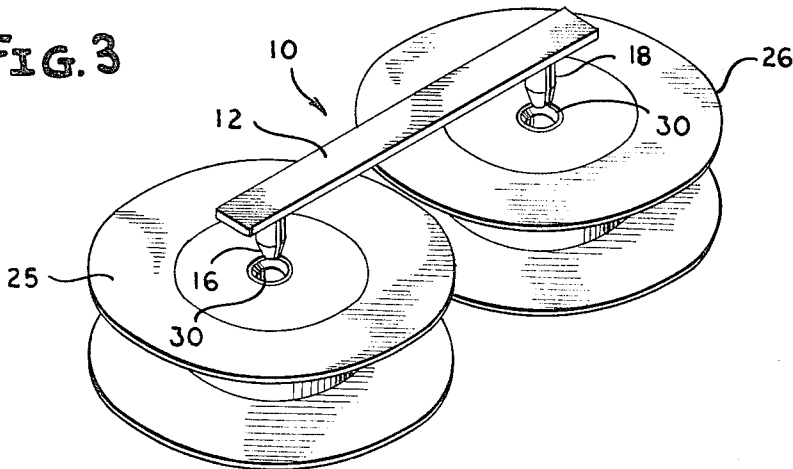


FIG. 3



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RIBBON SPOOL MOUNTING BRACKET

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1 Claim. (Cl. 206—59)

The present invention relates generally to mounting devices for inked printing ribbons and more particularly to improved packaging devices for inked printing ribbon spools of the kind employed in typewriters, commercial business machines, and the like.

In applicant's prior Patent No. 3,008,561, there is disclosed an improved packaging device for typewriter ribbon spools. In essence, that device consists of a pair of containers or cups joined by a frangible bridge, the containers being adapted to receive a pair of typewriter ribbon spools and the bridge coupling having a central slot through which the ribbon passes in proceeding from one container or cup to the other.

In co-pending application Ser. No. 297,890, for Double Utility Typewriter Spool, applicant discloses, among other things, a pair of single flanged typewriter spools joined at their flanges by a frangible element to provide a conveniently packaged arrangement. Although the particular packaging devices disclosed in the aforementioned patent and co-pending application are perfectly suitable for their disclosed purposes, it has been found desirable to provide means for joining two or more typewriter ribbon spools by means which need not be an integral part of the spools or cartridges within which the spools are contained. By providing a separate element for joining or mounting the two or more spools there is overcome any possibility of improper breakage of the spools or containers when disconnected for use, and, further, the same means may be used for mounting or joining any of the great variety of typewriter spools presently being manufactured, without need for modifying the fabrication of these spools themselves.

Accordingly, it is a primary object of the present invention to provide an improved device for holding or mounting two or more inked ribbon spools in fixed side-by-side relation to form a ribbon pack.

In accordance with an embodiment of the present invention, the holding device for joining a pair of ribbon spools in side-by-side relation to provide a convenient packaging arrangement comprises a bracket having a flat elongated portion, on one side of which are provided a pair of upstanding longitudinally slotted pins. The pins are spaced by a distance sufficient to permit the mounting thereon of a pair of conventional typewriter ribbon spools; that is, the pins are spaced by a dimension slightly greater than the diameter of one of the two identical spools to be placed in the joint assembly. The diameter of each pin is approximately equal to the inner diameter of the axial hole in the central hub of each spool, the hub, of course, being adapted to mate with the upstanding pin of a typewriter ribbon well when the spool is to be used. Since each of the mounting bracket pins are slotted they may be readily inserted into the cylindrical hole at the center of each spool, and yet provide a sufficiently close fit to maintain the spools fixedly mounted thereon until it is desired to remove the spools for use in the typewriter. Thus, the spools may be easily slipped on or off the mounting bracket with a minimum of effort, but are securely attached to the bracket during transportation, display, or storage thereof, in multiple ribbon pack form.

It is, therefore, a further object of the present invention to provide a mounting bracket which will securely hold two or more typewriter ribbon spools, but which will permit the removal of the spools therefrom with a minimum of effort when ready for use.

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The above and still further objects, features and attendant advantages of the present invention will become apparent from a consideration of the following detailed description of a specific embodiment thereof, especially when taken into conjunction with the accompanying drawings wherein:

FIGURE 1 is a plan view of a bracket in accordance with the present invention.

FIGURE 2 is a side elevational view of the bracket of FIGURE 1.

FIGURE 3 is an exploded perspective view of a ribbon spool pack assembly; and

FIGURE 4 is a side elevational view partially in section illustrating the manner in which the spool assembly of FIGURE 3 is joined.

Referring now generally to the drawings wherein like reference numerals refer to like component parts, and more particularly to FIGURES 1 and 2, there is shown a ribbon spool assembly mounting bracket generally designated by reference numeral 10. The bracket 10 has a flat elongated portion 12 which is generally represented as being rectangular in shape, but it will be understood that portion 12 may be produced in various other shapes provided only that it is of a flat unitary continuous nature of sufficient length to permit mounting of a pair of typewriter ribbon spools. To this end, flat portion 12 has a pair of surfaces 14, 15 from one of which, surface 14 in this example, project a pair of pins 16, 18 in substantial alignment along the longitudinal axis of portion 12. Each of the pins has a substantially axial slot 20 extending from the free end thereof to a point approximately aligned with surface 14 of the longitudinal portion 12. In addition, each of the pins may, if desired, be rounded or tapered at its free end, as depicted at 23.

Preferably, the entire bracket is molded of a suitable material, such as plastic, in a single integral piece. It is within the contemplation of this invention, however, that the bracket may be composed of other appropriate materials, such as metal, and the pins may be separate pieces which are suitably attached or fastened to the flat elongated portion 12, such as by threading into a tapped hole, riveting, or the like. It will also be understood that the bracket may have one or more additional arms extending therefrom, each arm having one or more additional projecting slotted pins, such that more than a pair of spools may be packaged in a single spool assembly. For example, a bracket may be formed in a Y or Δ shape, the pins being disposed at the tips of the Y or the corners of the Δ, suitable provision being made for pin spacing.

In FIGURES 3 and 4 there is illustrated an assembled ribbon spool pack, a pair of conventional typewriter ribbon spools 25, 26 being held or joined together in fixed side-by-side relation by the previously described mounting bracket 10. Pins 16, 18 are inserted into the cylindrical central holes 30 of the respective spools, each pin compressing slightly in a direction normal to its axis, by virtue of its axial slot, during insertion into the spool. Each spool is gripped tightly by its respective pin but may be readily removed when desired for use. The juxtaposed spools may then be packaged and transported, stored or displayed in a convenient manner.

When it is desired to remove a spool or spools for use in a typewriter or business machine, each spool may be separately and readily removed by simply withdrawing it from its mounting pin. With reference to the above-described embodiment, a pair of doubly flanged spools has been illustrated in the ribbon spool pack assembly. It will be understood, however, that single flanged spools, or ribbon cores having no flanges may also be joined in a convenient assembly, appropriate modification being made in the distance between the pin centers on the mounting bracket in accordance with the diameter of the spools or

cores to be mounted. As to the latter use, each double spool bracket may be formed from two separate pieces (not shown) each having a mounting pin disposed thereon, one piece telescoping into the other for variable spacing of the pins to provide a universal spool-mounting bracket.

While I have described and illustrated one specific embodiment of the present invention, it will become apparent that variations of the specific details of construction may be resorted to without departing from the true spirit and scope of the invention as defined in the appended claim.

I claim:

1. A bracket holding a pair of identical ribbon spools in fixed juxtaposed relation, each spool having an axial hole for mounting the spool in a typewriter ribbon well, said bracket consisting of a flat elongated portion having a pair of pins projecting from a common surface thereof, the pins being spaced by a distance at least equal to the diameter of one of said spools, each pin having a slot extending longitudinally from the free end thereof toward said common surface and having a diameter sufficiently great to provide a resilient force fit with the interior of

said axial hole, said slots extending transversely entirely through said pins, the lengths of said pins being sufficiently great to frictionally engage said axial holes when inserted therein, whereby upon insertion of each pin in the axial hole of a spool the pin is compressed slightly in a direction normal to its longitudinal axis and thereby grips said spool in releasable engagement.

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