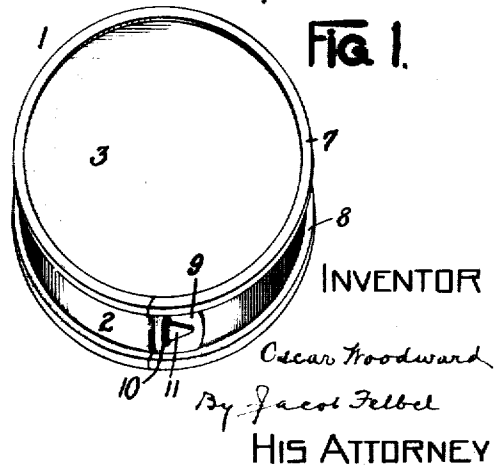
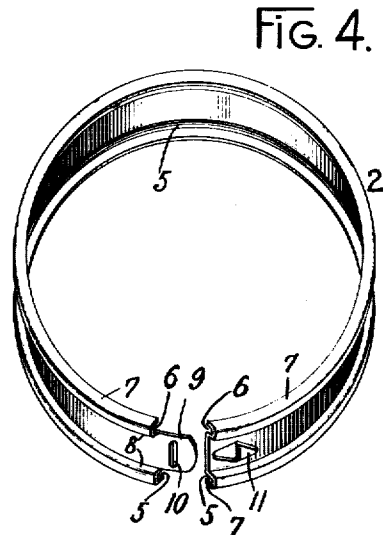
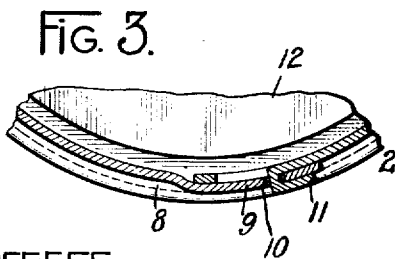
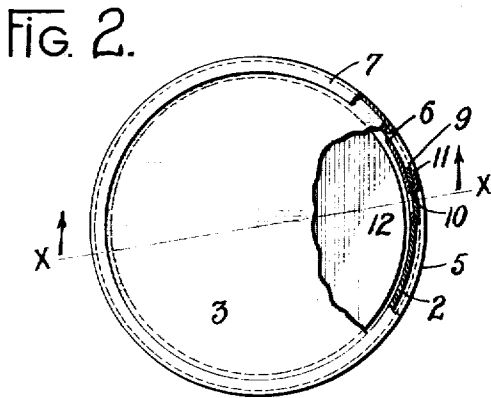
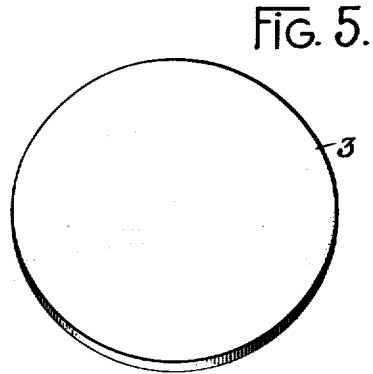
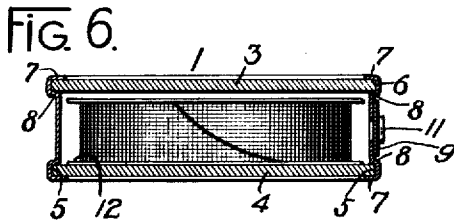
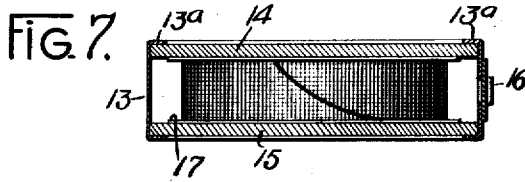


O. WOODWARD.
BOX OR RECEPTACLE.
APPLICATION FILED OCT. 22, 1917.

1,378,508.

Patented May 17, 1921.



WITNESSES

E. M. Wells.

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UNITED STATES PATENT OFFICE.

OSCAR WOODWARD, OF BABYLON, NEW YORK, ASSIGNOR TO REMINGTON TYPE-WRITER COMPANY, OF ILION, NEW YORK, A CORPORATION OF NEW YORK.

BOX OR RECEPTACLE.

1,378,508.

Specification of Letters Patent.

Patented May 17, 1921.

Application filed October 22, 1917. Serial No. 197,353.

To all whom it may concern:

Be it known that I, OSCAR WOODWARD, citizen of the United States, and resident of Babylon, in the county of Suffolk and State of New York, have invented certain new and useful Improvements in Boxes or Receptacles, of which the following is a specification.

My present invention relates to boxes, receptacles or containers, and its principal object is to provide a new and improved box, receptacle or container, and one which is both low in cost and simple and easy of manufacture.

To the above and other ends my present invention consists in the features of construction, combinations of devices and arrangements of parts hereinafter described and particularly pointed out in the claims.

My improved box or container was especially designed for ribbon spools such as are used on typewriters, but the invention is not restricted to such use.

In carrying out the invention in the present instance I provide two disks which may be of pasteboard or the like and which constitute the end pieces or portions of the box, and a body portion which may be of flexible or bendable metal and which is contractile or yielding, said body portion being in the form of a band that is preferably provided with grooves, flanges or shoulders near its top and bottom that are adapted to receive the peripheral portions of the disks, the band when contracted clamping the disks, or maintaining them a definite distance apart. Locking devices, which are preferably a part of the band itself and which may be formed by striking up a flexible tongue from one end of the band that is adapted to a hole near the other end of the band, are provided for holding the band in locking or contracted position so that it will exert peripheral frictional action on the top and bottom pieces, or end disks.

My invention will be more particularly described in connection with the accompanying drawings, wherein—

Figure 1 is a perspective view of a box embodying the preferred form of my invention.

Fig. 2 is a plan view of the box, part of said box being broken away.

Fig. 3 is an enlarged fragmentary cross

sectional view showing the locking devices in operative engagement.

Fig. 4 is a perspective view of the band or body portion of the box.

Fig. 5 is a perspective view of an end disk.

Fig. 6 is a transverse sectional view taken on a plane represented by the dotted line $\alpha \alpha$ in Fig. 2 and looking in the direction of the arrows at said line.

Fig. 7 is a view corresponding to Fig. 6 but showing a modification.

Referring first to the preferred form of the box or receptacle illustrated in Figs. 1 to 6 inclusive, said box 1 comprises a body portion and separate or separable end portions or top and bottom portions. The body portion in the present instance is in the form of a circular flexible band or ring of metal, which may be spring metal, and is designated as a whole by the reference numeral 2, while the end portions may be disks 3 and 4 of pasteboard or the like. These disks as illustrated are duplicates. One of them, shown detached in Fig. 5, is designated as 3, that is the top disk, but it will be understood that the bottom disk 4 may be, and preferably is, of the same character and construction. In Fig. 4 the band 2 is shown expanded prior to assembling the several parts of the box. It is intended when the disks 3 and 4 have been introduced in place to draw the ends of the band 2 together so as to peripherally engage the disks and thereafter the band is held in position so as to co-act with the disks around their entire peripheries, the band being thus held by controlling or locking means. In order to hold the disks at a fixed or predetermined distance apart, and so that they cannot move either away from or toward each other, I preferably provide the band 2 with circumferential grooves 5 and 6 which provide seats for the disks 3 and 4 respectively. These grooves project outward from the face of the band, forming flanges or shoulders 7 and 8, the flanges 7 preventing the disks from working outward and the flanges 8 preventing them from working inward toward each other. The middle portion of one end of the band 2 extends beyond the grooves 5 and 6, as indicated at 9, the portion 9 being formed with a hole or slotway 10. A tongue 11 is struck out from the opposite end of the band 2 be-

tween the grooves 5 and 6, this tongue being bendable and being adapted to cooperate with the hole 10 after the disks have been seated in the grooves and the band has been contracted, this cooperation holding the band in engagement with the disks and maintaining the parts of the box in operative relationship. In other words, the tongue 11 and the cooperating opening 10 provide locking devices for holding the parts of the box set or locked in fixed relationship.

It will be seen that there has been provided a knockdown box which is simple in construction, is made of comparatively cheap materials, and is easy to assemble, it being only necessary to arrange the disks within the grooves, draw the ends of the band together, pass the tongue 11 through the hole 10, and then bend the tongue back toward the right, as in Figs. 3 and 4. Figs. 1, 2 and 3 show the locking device or tongue 11 in operative position. As has been stated, while the box may be employed as a container for any suitable object, it was particularly designed for typewriter ribbon spools, such a spool being shown in Fig. 6 wherein it is designated by the numeral 12. Of course it will be understood that prior to completely assembling the parts of the box, the ribbon spool or other object to be contained is arranged within it. For example, after the bottom piece or disk 4 is inserted within the band, the ribbon spool 12 may be placed within the box, resting on the bottom piece, after which the top piece 3 is inserted and the band contracted and locked, as has been explained. Of course any other series of steps may be adopted which results in assembling the box with the spool in it. The ribbon spool is ordinarily inclosed in a tinfoil wrapper or cover which, for the sake of clearness, has been omitted from the drawing. The box shown is adapted to ribbon spools of various widths, as will be plain from Fig. 6; in other words, a spool narrower than the one shown may be boxed as readily as the spool 12, as may also a spool of greater width. There are in ordinary use three different widths of ribbon and the spools carrying them are of corresponding widths. Preferably my knock-down box or container is made in one width, which is of such dimensions as readily to accommodate the widest ribbon spool, and it will be plain from what has been said that the narrower spools may be equally well accommodated, the only difference being that there will be more vacant space in the box in such cases. However, whatever the space between the faces of the spool flanges as compared with that between the inner faces of the top and bottom of the box, the flanges 8 will prevent the said top and bottom from being displaced toward each other, while of

course the outer flanges or shoulders 7 will prevent outward displacement. The outer faces of the box parts have been shown plain in the drawing but it will be understood that they afford convenient surfaces for advertising or descriptive matter.

The modification shown in Fig. 7 illustrates a box comprising a band 13 and end pieces 14 and 15, said box containing a ribbon spool 17. The band 13 generally resembles the band 2 of the preferred form, being flexible and having a locking tongue 16 near one end and a cooperating hole near the other end. The band 13, however, is plain throughout its circumference, not being provided with grooves but having its end portions bent inward to provide flanges 13^a. These flanges prevent the top and bottom from being displaced outwardly away from each other but do not positively prevent the said top and bottom from being pressed in toward each other and against the flanges of the ribbon spool 17. To prevent this only the peripheral friction exerted by the band on the peripheries of the disks 14 and 15 can be relied on. It is apparent of course that this friction may be overcome by an inward pressure of sufficient force, which pressure the box ends are not at all unlikely to receive, and consequently this form of the box is not well adapted to narrower ribbon spools than the one, 17, illustrated. The illustrated ribbon spool 17 substantially fills the interior of the Fig. 7 box and its flanges consequently prevent inward displacement of the disks 14 and 15. While the Fig. 7 form of my invention possesses some of the advantages of the preferred form, it will be apparent that it is not well adapted to more than one width of ribbon spool, and that it will be desirable, if not necessary, to provide a different box for each width of ribbon spool, the boxes varying in width or depth in correspondence with the ribbon spools for which they were designed.

Some of the advantages of my knock-down box have already been set forth. Heretofore it has been customary in the trade to provide square tin boxes or receptacles for the ribbon spools for typewriting machines. My novel knock-down box is much cheaper than the boxes heretofore in use and may be readily manufactured in the factories which supply the ribbon spools and ribbons. Moreover, it has been customary heretofore to ship the tin boxes containing ribbon spools in packages of a dozen, each dozen boxes being contained in a comparatively expensive carton of pasteboard. My novel circular boxes are well adapted to be shipped in ordinary cylindrical mailing tubes of suitable diameter which readily accommodate up to a dozen of these boxes and which are comparatively inexpensive. The knock-down character of the boxes further

results in economy of storage space in ware-rooms.

Various changes besides those specified may be made without departing from my invention.

What I claim as new and desire to secure by Letters Patent, is:—

1. A knockdown box consisting of two heads and a flexible binding strip which constitutes the body of the box, the ends of the binding strip being provided with locking devices which when operative enable said strip to exert a clamping effect around said heads, said binding strip having annular seats which receive the heads and maintain them a fixed distance apart.

2. A knockdown box for ribbon spools or the like consisting of two circular pasteboard disks and a cooperating band of metal, said band constituting the body of the box and being formed with two grooves spaced apart that provide seats for the peripheral portions of said disks, said band being provided near its ends with interlocking catching devices that positively lock the band over, and clamp it around, the disks.

3. A circular knockdown box for ribbon

spools consisting only of two disks and a cooperating annular metal band provided at its ends with catching devices, said band constituting the entire body of the box and being contracted to grip all around the peripheral edge portions only of said disks to maintain them in set relationship with the band as the result solely of interlocking said catching devices.

4. A knockdown box for ribbon spools or the like comprising only two circular plane disks and a cooperating band of metal, said band being formed with two grooves spaced apart that provide seats for the peripheral portions of said disks, said band near its ends having fastening devices which cooperate positively to lock the band around the disks and hold them permanently spaced apart a definite distance.

Signed at the borough of Manhattan, city of New York, in the county of New York and State of New York, this 19th day of October, A. D. 1917.

OSCAR WOODWARD.

Witnesses:

E. M. WELLS,

CHARLES E. SMITH.