

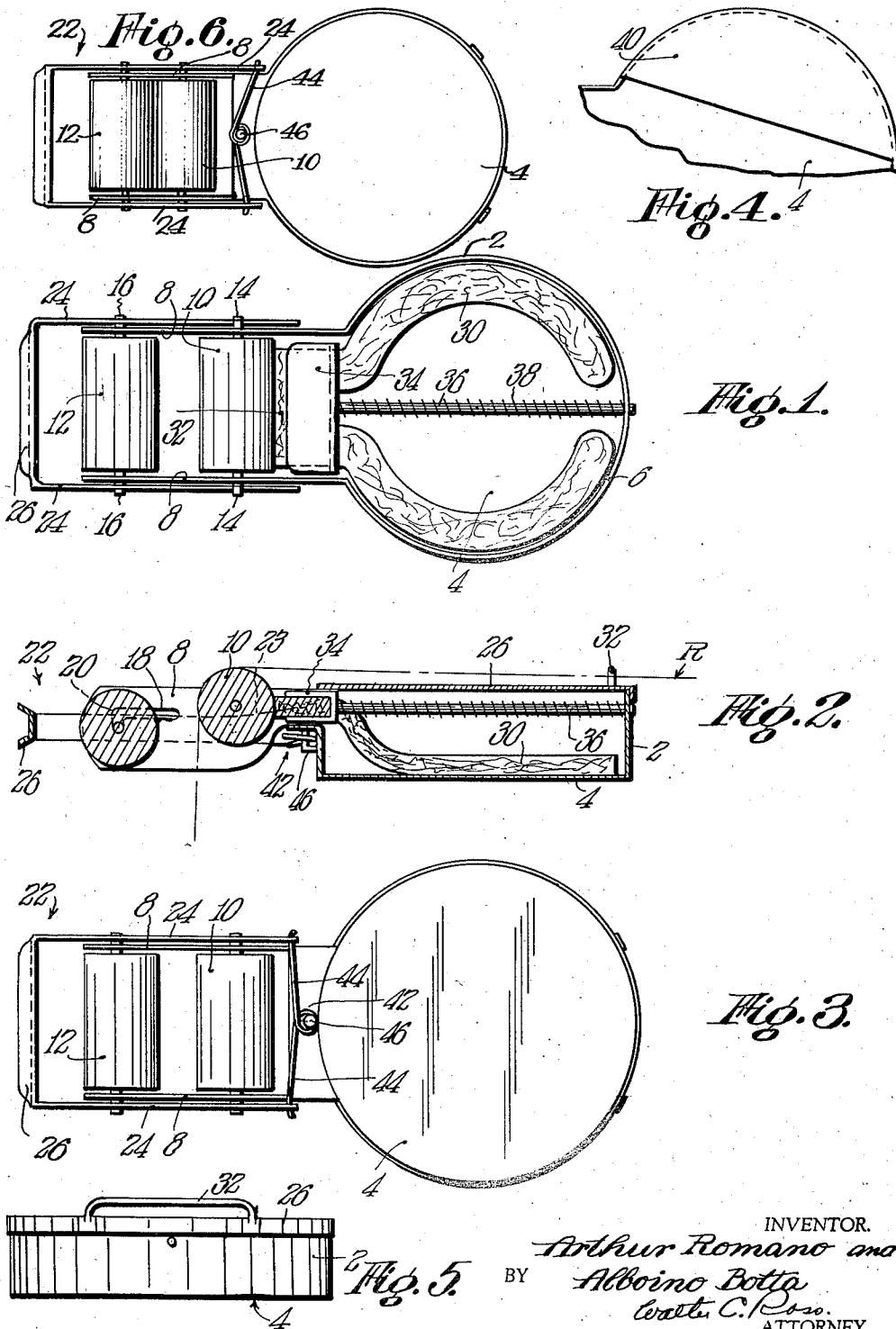
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INKING DEVICE

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# UNITED STATES PATENT OFFICE

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## INKING DEVICE

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4 Claims. (Cl. 91—62.5)

This invention relates to improvements in devices for inking ribbons and the like and is directed more particularly to improvements in devices for inking typewriter ribbons.

The principal objects of the invention are directed to the provision of a novel inking device adapted for use in connection with typewriter ribbons and the like and it is characterized by its compactness and simplicity in form whereby it is economical to produce and may be readily associated with a typewriter.

Various other novel features and advantages of the invention will be hereinafter more fully referred to in connection with the accompanying description of the preferred form thereof, reference being had to the accompanying drawing wherein:

Fig. 1 is a plan view of the device of the invention with the cover removed;

Fig. 2 is a longitudinal sectional elevational view through the device with the cover in place;

Fig. 3 is an inverted plan view of the device shown in Figs. 1 and 2;

Fig. 4 is a partial plan view to explain certain details of construction;

Fig. 5 is a side elevational view of a cover member; and

Fig. 6 is a plan view similar to Fig. 3 at a smaller scale showing certain of the parts in a different position.

Referring now to the drawing more in detail, the invention will be fully described.

What may be called a casing is represented at 2 and in the form shown this is round although it may be of any other shape. Preferably it has a bottom wall 4 and a peripheral side wall 6, as shown in Fig. 2.

A pair of spaced arm members 8 are provided and these extend forwardly from the casing. Then between these arms 8 there is disposed a pair of co-operating rolls 10 and 12. The roll 10 has trunnions 14 rotatable in the arms 8 while trunnions 16 on roll 12 are disposed in longitudinal slots, such as 18, provided in the arms.

The said slots 18 have downwardly depending portions 20 (see Fig. 2) and there is provided what may be called a roll release member 22. This has side members 24 and a transverse member 26 and the trunnions 16 of roll 12 are rotatable in the side members 24.

In this way, by moving the member 22 forward and back the trunnions 16 of roll 12 are moved along the slots 18 of arms 8.

The parts are so arranged that when the member 22 is in its rear position the roll 12 is brought

into engagement with roll 10 and, of course, when the member 22 is forward, the rolls are out of contact. In the drawing, the member 22 is shown in a forward position whereby the rolls 10 and 12 are out of contact.

A spring having end parts 44 extending through the rear ends of members 24 and held by a retainer 46 may be provided to urge the member 22 rearwardly. Thus, when the member 22 is elevated from the position shown in Fig. 2 so that the trunnions 16 are out of slots 20, the said trunnions may slide rearwardly in slots 18 of arms 8 so that the rolls 10 and 12 are normally held in yielding contact.

A U-shaped bracket member 34 is preferably associated with the casing and a rod 36 is guided for sliding movements therein. The rear end of rod 36 may extend through an opening in the rear part of wall 6 of the casing and a coil spring 38 is preferably provided on the rod so as to abut the wall of the case and urge the member 34 forwardly.

A resilient pad member 30 is disposed within the casing and it has a part associated with part 34. Thus, it will be seen, the spring 38 causes the pad to yieldingly bear against the rear roll 10.

Ink or other material, which it is desired to apply to the ribbon, is applied to the ink absorbing member 30 and of course the ink is fed onto roll 10 thereby. If desired, an upper wall part such as 40 shown in Fig. 4 may be provided in association with the casing and this is to prevent ink from flowing out the casing in the event it is desired to use the device while disposed on its side.

A cover such as 26 is provided for fitting on the casing and, as shown in Fig. 5, this preferably has a guide member 32. Thus, in operation, as shown in Fig. 2, a ribbon R may be led forwardly through the guide 32 and over roll 10. As stated, by moving member 22 forwardly the roll 12 is moved away from 10 so that the ribbon R may go therebetween. Then by releasing member 22, roll 12 is caused to bear on the ribbon and as the ribbon R is drawn through the rolls they are rotated.

According to the preferred form of the invention, part 26 of member 22 is formed to facilitate handling thereof and the arms 24 are so arranged that in the event that roll 10 has been supplied with an excess amount of ink and it is not desired to have the roll apply ink to the ribbon, the forward end of member 22 may be tilted downwardly so that the upper sides of the arms, as indicated by 23, will bring up against

the trunnions 14 of roll 10 to retard or stop rotation thereof.

The ink absorbing member indicated by 30 may extend around the casing as indicated in Fig. 1 or it may be of some other form. It preferably consists of felt or the like, and, as stated, it has a portion carried in carrier member 34 and in contact with roll 10.

While we have described the invention in great detail and with respect to a preferred form thereof, it is not desired to be limited thereto since many changes and modifications may be made therein without departing from the spirit and scope of the invention.

What it is desired to claim and secure by Letters Patent of the United States is:

1. A device for applying ink or the like to a typewriter ribbon or the like comprising in combination, a casing in the form of a receptacle having spaced arms extending forwardly therefrom each provided with a longitudinally-extending slot and a communicating transverse slot at the outer end thereof, an inner roll journaled in said arms for rotation therebetween, an inking pad disposed in said casing having a part for contacting with said inner roll, a roll-release member having a pair of side arms disposed adjacent the first-named arms, an outer roll between the arms of the said release member having trunnions rotatable therein and disposed in and movable relative to said slots, and spring means associated with said casing and said arms of the release member urging the latter inwardly towards the casing, all adapted and arranged whereby the release member may be moved against the action of the spring means from an inner position where the rolls are in engagement to an outer position by sliding the trunnions of the outer roll along the longitudinal slots of the spaced arms and into the transverse slots thereof so that the release member is held against inward movement with the rolls in separated relation against the action of the spring means.

2. A device for applying ink or the like to a typewriter ribbon or the like comprising in combination, a casing in the form of a receptacle, spaced arms extending forwardly of the casing having longitudinally extending substantially straight slots terminating in transverse slots at the outer ends thereof, an inner roll having trunnions rotatable in said arms, a release member having arms adjacent said spaced arms provided with trunnion engaging portions, an outer roll at a side of the inner roll remote from the casing rotatable between the arms of the release member having trunnions therein which are disposed in and for movement along the slots of the spaced arms, and spring means associated with said casing and release member urging the latter inwardly towards the former, all adapted and arranged whereby the release member may be moved outwardly from the casing against the action of the spring means to move the trunnions of the outer roll along the longitudinal slots of the spaced arms and into the transverse slots to separate the rolls by a substantially straight line movement and hold the said rolls in separated relation or the arms of the release member when the rolls are engaged may be oscillated on the trunnions of the outer roll so that the engaging portions thereof bear on the trunnions thereof.

nions of the inner roll to retard rotation thereof.

3. A device for applying ink or the like to a typewriter ribbon or the like comprising in combination, a casing in the form of a receptacle, spaced arms extending forwardly of the casing having longitudinally extending substantially straight slots terminating in transverse slots at the outer ends thereof, an inner roll having trunnions rotatable in said arms, a release member having arms adjacent said spaced arms provided with trunnion engaging portions, an outer roll at a side of the inner roll remote from the casing rotatable between the arms of the release member having trunnions therein which are disposed in and for movement along the slots of the spaced arms, and spring means associated with said casing and release member urging the latter inwardly towards the former, all adapted and arranged whereby the release member may be moved outwardly from the casing against the action of the spring means to move the trunnions of the outer roll along the longitudinal slots of the spaced arms and into the transverse slots to separate the rolls by a substantially straight line movement and hold the said rolls in separated relation or the arms of the release member when the rolls are engaged may be oscillated on the trunnions of the outer roll so that the engaging portions thereof bear on the trunnions of the outer roll to retard rotation thereof, the said spring means including a spring member having opposite ends engaging inner ends of the arms of the release member and a central portion secured to the casing.

4. A device for applying ink or the like to a typewriter ribbon or the like comprising in combination, a casing in the form of a receptacle, spaced arms extending forwardly of the casing having longitudinally extending substantially straight slots terminating in transverse slots at the outer ends thereof, an inner roll having trunnions rotatable in said arms, a rod slidable on the casing, an inking pad, a part on the end of said rod embracing a part of the inking pad for contacting said inner roll, a spring urging said part forwardly to cause the pad to yieldingly bear on said roll, a release member having arms adjacent said spaced arms provided with trunnion engaging portions, an outer roll at a side of the inner roll remote from the casing rotatable between the arms of the release member having trunnions therein which are disposed in and for movement along the slots of the spaced arms, and spring means associated with said casing and release member urging the latter inwardly towards the former, all adapted and arranged whereby the release member may be moved outwardly from the casing against the action of the spring means to move the trunnions of the outer roll along the longitudinal slots of the spaced arms and into the transverse slots to separate the rolls by a substantially straight line movement and hold the said rolls in separated relation or the arms of the release member when the rolls are engaged may be oscillated on the trunnions of the outer roll so that the engaging portions thereof bear on the trunnions of the inner roll to retard rotation thereof.

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