Jan. 31, 1956 E. G. BROWN 2,732,824

INKING DEVICE FOR TYPEWRITER RIBBONS

Filed Oct. 17, 1952

FIG. 2

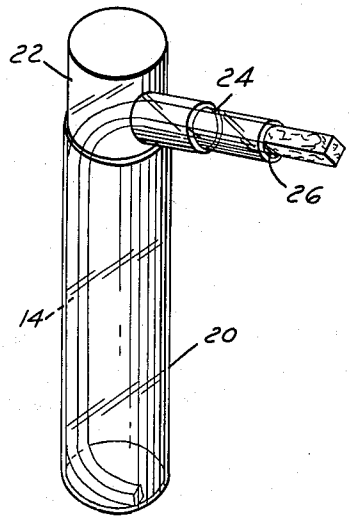


FIG. 3

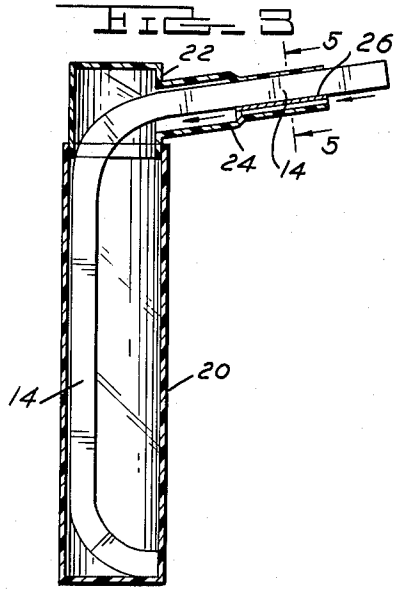


FIG. 4

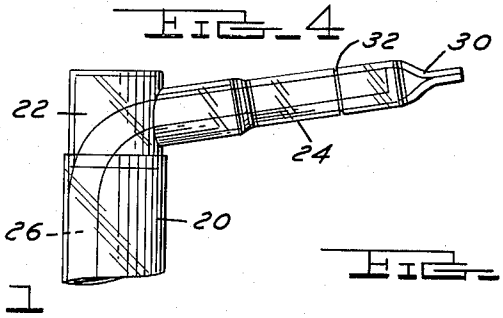


FIG. 5

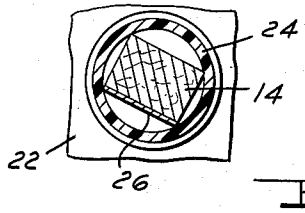


FIG. 7

FIG. 1

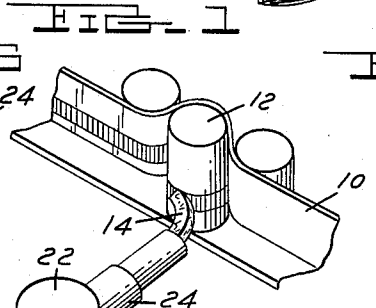


FIG. 6

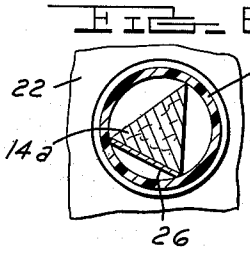
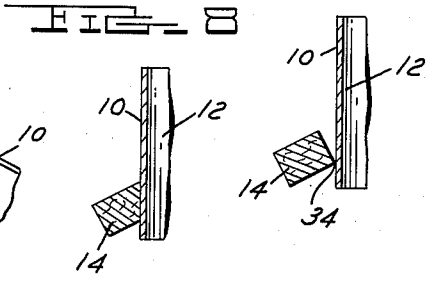


FIG. 8



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INKING DEVICE FOR TYPEWRITER RIBBONS

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This invention relates to an improved inking device.

It relates particularly to an inking device of the ink reservoir wick discharge type as used upon a machine provided with a travelling ribbon to which ink is applied from a roller and which roller receives its ink from the inking device.

An object is to provide an inking device of the character described which is simple, inexpensive, efficient in functioning and wherein the wick is so supported as to deliver ink to the ink receiving roller of the machine in a fine line or a relatively broad band.

Another object is to provide an inking device as set forth having an ink reservoir which also carries the wick and from which the wick extends through a wick carrier to be projected outwardly away from the reservoir and communicating with the interior thereof and wherein the wick is so supported within the tube that ink may be delivered therefrom in a relatively fine line to an ink receiving roller.

An additional object is to provide an inking device as set forth wherein the wick is so supported within a carrier tube as to define an air passageway through the tube for the passage of air into the interior of the reservoir.

Another object is to provide an inking device of the character described wherein the wick carrier tube has a plate disposed therein and extending lengthwise thereof which plate supports the wick so that air may pass between the plate and the tube into the reservoir. In addition the plate supports the wick so that the wick is projected outwardly beyond the end of the tube and is held at a determined position with respect thereto.

A meritorious feature is that the wick with which the device is provided preferably has a cross sectional shape which is non-circular. It is shown as of a rectangular cross sectional shape. The wick is so supported that the end which projects beyond the end of the tube presents a corner to the ink receiving roller so that ink may be delivered thereto in a relatively fine line. The corner of the wick which is presented to the face of the roller may be urged thereagainst so as to flatten the wick at such point of contact and increase the width of the ink line on the roller.

A meritorious feature is that the plate which supports the wick and defines the air breather passageway through the tube is disposed within the tube at an acute angle to the horizontal when the ink container is held upright. Specifically such wick supporting plate serves also to hold the wick away from a portion of the side wall of the wick carrier tube so as to define the air passageway therethrough. More particularly the wick supporting plate may be adjustably positioned within the carrier tube to vary the angle of presentation of the wick to the ink receiving roller.

Other objects, advantages and meritorious features will more fully appear from the following specification, appended claims and accompanying drawings, wherein:

Fig. 1 is a perspective of a fragment of my inking device associated with the ink receiving roller and ribbon of a machine;

Fig. 2 is a perspective of the inking device alone;

Fig. 3 is a vertical sectional view through the inking device shown in Fig. 2;

Fig. 4 is an elevation broken away of the upper end of the inking device before the wick carrier tube has been severed to permit use of the wick;

Fig. 5 is a cross sectional view taken on the line 5—5 of Fig. 3;

Fig. 6 is a cross sectional view taken on the same line as Fig. 5 but showing a wick of triangular cross sectional shape as compared with the rectangular cross sectional shape shown in Fig. 5;

Fig. 7 is a fragmentary section through an ink receiving roller with the corner of the wick disposed in contact with the surface of the roller; and,

Fig. 8 is a fragmentary section taken on the same line as Fig. 7 but showing the wick urged and flattened against the roller.

Various types of computing business machines are equipped with ribbons that have to be inked during use. Generally the ink is placed thereon by a roller over which the ribbon travels. The ink is delivered to the roller by an inking device. In Fig. 1 reference numeral **10** indicates a ribbon of such machine and **12** indicates a roller which is disposed to contact the ribbon and deliver ink thereto. My inking device is shown in such figure as having a wick **14** which is held against the surface of the roller **12** to deliver ink thereto. The device itself may be supported in any suitable manner as by means of a bracket **16** secured to a frame portion **18**.

The ink container illustrated is in the form of a cylindrical tube container **20** provided at one end with a cap **22** secured thereto. A carrier tube **24** projects outwardly away from the cap and communicates with the interior of the container. This carrier tube projects outwardly from the container at such an inclination thereto that free liquid therein will flow normally back into the container when the container is in the upright position. It will be seen that the carrier tube has an outer end portion of reduced internal diameter as compared with the internal diameter of the inner container portion of the tube. A wick **14** is disposed within the container and the outer end of the wick projects outwardly through the carrier tube **24**. The wick has a non-circular cross sectional shape. It is here shown as rectangular in cross sectional shape.

In Fig. 4 the wick is shown as disposed within the container and extending through the tube and the tube is shown as sealed over at its outer end as at **30**. The tube is also shown as provided with a weakened encircling line of intended breakage indicated by the numeral **32**. When the device is desired for use the tip end of the tube is broken off along this line **32** leaving the end of the wick projecting therefrom as shown in Fig. 2.

The outer end portion of the wick carrier has a wick supporting plate **26** disposed therein and engaging the wick as shown in Figs. 2, 3 and 5. This plate is so disposed within the carrier tube that an air passageway is provided between the plate and the adjacent wall of the tube whereby air can flow through the tube into the interior of the container. The carrier plate also serves to support the wick at such an angular position that a wick of non-circular contour such as is shown here will have a corner thereof as indicated by the numeral **34** presented to the face of the ink receiving roller **12** as shown in Fig. 7. The wick may, however, be urged with some force against the roller, thereby flattening the wick so as to place a relatively wide line of ink upon the roller, all as shown in Fig. 8.

The plate itself is disposed within the wick carrier tube at an acute angle to the horizontal diameter of the tube

so that with the inking device positioned upright a corner of the wick is presented to the roller. The wick is supported relatively snugly within the tube so that it maintains its positions therein. The wick supporting plate 26 may be adjustably rotated within the tube about the axis of the tube so as to vary the angle of approach of the end of the wick to the roller, all as desired.

In Fig. 6 the wick is indicated as 14*a* and is triangular in cross section. Such a cross sectional shape of wick could also be arranged so as to present a corner to the surface of the roller.

What I claim is:

1. An inking device comprising a cylindrical tubular ink container, a cap secured to one end of the container, said cap having a wick carrier tube projecting laterally therefrom and at an upward angle of inclination with respect thereto and communicating with the interior thereof, said carrier tube having an outer end portion of less internal diameter than the internal diameter of its inner end portion, a wick of substantially rectangular cross section having one end disposed within the container and having its opposite end extending outwardly through the carrier tube, said wick being of such cross sectional dimension that it is snugly but shiftably held within the outer end portion of the tube providing breather passageways between the tube wall and the respective sides of the wick, a wick supporting breather plate extending lengthwise through the outer end portion of the carrier tube engaging one side of the wick and supporting the wick spaced from the opposite portion of the side wall of the tube, said plate itself spaced from said portion of the side wall of the tube providing an air passageway between the plate and the side wall of the tube.

2. An inking device comprising a cylindrical tubular ink container, a cap secured to one end of the container, said cap having a wick carrier tube projecting laterally therefrom and at an upward angle of inclination with respect thereto and communicating with the interior thereof, said carrier tube having an outer end portion of less internal diameter than the internal diameter of its inner end portion, a wick of substantially rectangular cross section having one end disposed within the container and having its opposite end extending outwardly through the carrier tube, said wick being of such cross sectional dimension that it is snugly but shiftably held within the outer end portion of the tube providing breather passageways between the tube wall and the respective sides of the wick, a wick supporting breather plate extending lengthwise through the outer end portion of the carrier tube engaging one side of the wick and supporting the wick spaced from the opposite portion of the side wall of the tube, said plate itself spaced from said portion of the side wall of the tube providing an air passageway between the plate and the side wall of the tube, said plate being normally freely disposed within the tube at an angle with respect to the horizontal when the container is disposed in the upright position and being rotatably shiftable within the tube about its linear axis to vary the angle of inclination of the plate with respect to the horizontal and to thereby vary the position of the wick within the tube.

3. An inking device comprising a cylindrical tubular ink container, a cap secured to one end of the container, said cap having a wick carrier tube projecting laterally therefrom and at an upward angle of inclination with respect thereto and communicating with the interior thereof, said carrier tube having an outer end portion of less internal diameter than the internal diameter of its inner end portion, a wick of substantially rectangular cross section having one end disposed within the container and having its opposite end extending outwardly through the carrier tube, said wick being of such cross sectional dimension that it is snugly but shiftably held within the outer end portion of the tube providing breather passageways between the tube wall and the respective sides of the wick, a wick supporting breather plate extending lengthwise through the outer end portion of the carrier tube engaging one side of the wick and supporting the wick spaced from the opposite portion of the side wall of the tube, said plate itself spaced from said portion of the side wall of the tube providing an air passageway between the plate and the side wall of the tube, said reduced diameter outer end portion of the tube being closed at its tip end and provided with a weakened line of breakage encircling the same spaced between said tip end and the inner end portion of increased diameter, said wick normally extending into the tip end portion of the tube beyond the weakened line of breakage, said breather plate being disposed wholly within the outer end portion of the tube inwardly of the weakened line of breakage, said breather plate engaging the adjacent side of the wick supporting same spaced from the adjacent side of the tube and providing a passageway between the plate and the adjacent side of the tube, said plate being shiftable within the tube about the longitudinal axis thereof to vary the angular position of the wick within the tube.

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