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COMPOSITION FOR RECONDITIONING  
USED TYPEWRITER RIBBONS  
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Fig. 1

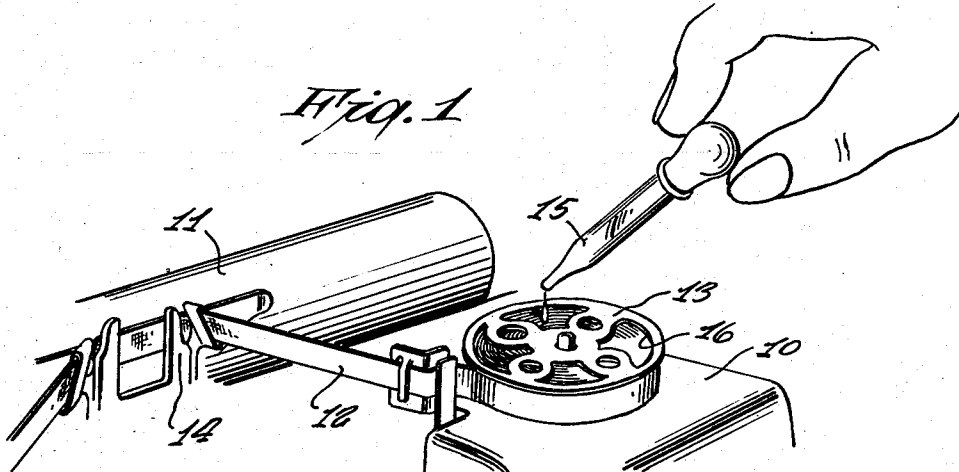


Fig. 2

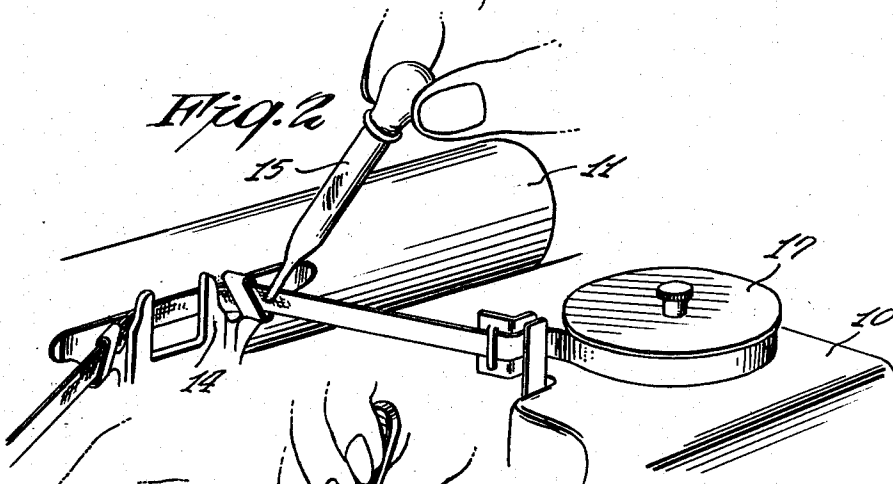
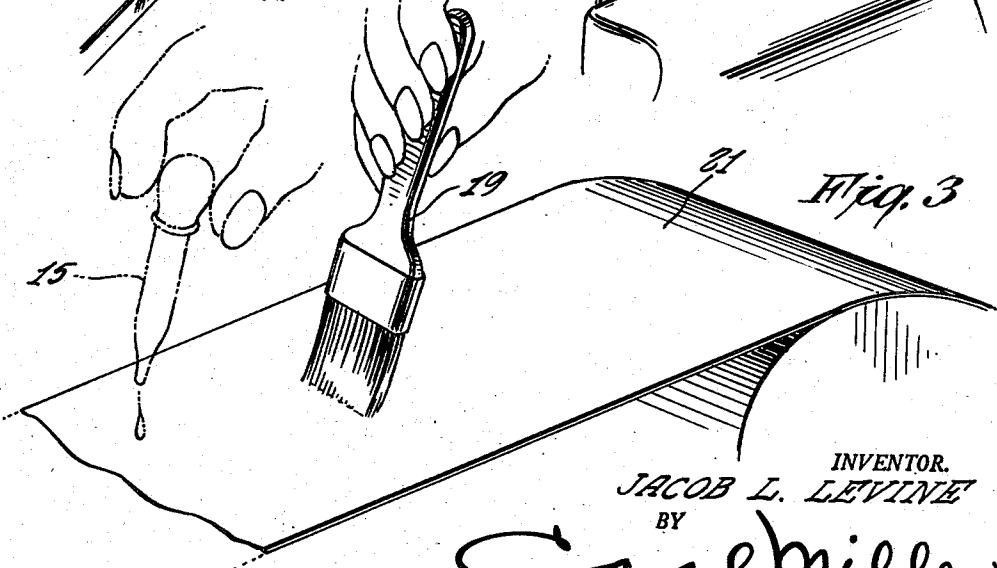


Fig. 3



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# UNITED STATES PATENT OFFICE

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## COMPOSITION FOR RECONDITIONING USED TYPEWRITER RIBBONS

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1 Claim. (Cl. 106—271)

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This invention relates to a composition of matter and method and process for reconditioning faded and worn typewriter and other duplicating ribbons.

It is an object of the present invention to provide a composition of matter or solution which can be applied to typewriter ribbons and to duplicating ribbons regardless of their color or combination of colors to revive and recondition the same and to extend their use whereby upon a simple application of the solution upon the ribbon, the ribbon can be prepared for further use on allowing the solution a little time to soak in and dissolve the dried out ink in the ribbon.

It is another object of the present invention to provide a solution for reviving faded typewriter ribbons and the like that can be compounded from readily available substances and which can be applied every few days upon the ribbon so that the ribbon will not be allowed to dry out and wherein the life of the same will be greatly extended and wherein this can be effected upon the ribbon without the removal of the ribbon from the typewriter or other machine.

Other objects of the present invention are to provide a solution for reconditioning typewriter ribbons which is inexpensive to compound, quick acting, may be applied with a brush or with a medicine dropper, will not affect other parts of the machine and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which

Fig. 1 is a perspective view of the top of a typewriter and of the solution being applied to the open ribbon cage.

Fig. 2 is a perspective view of the top of a typewriter where the cage is not of the open type and illustrating the application of the solution to the tape or ribbon near the cross-bar.

Fig. 3 is a perspective view illustrating the manner of applying the solution upon a horizontally extending tape by the use of a brush.

Referring now particularly to Fig. 1, 10 represents a typewriter having the usual typing roll 11, a ribbon 12 and an open top ribbon reel 13. This ribbon extends through the crossbar 14. According to the present invention, the solution, which will be hereinafter described, is applied to this ribbon by simply dropping with a medicine dropper 15 the solution on the edge of the ribbon and through the openings, as indicated at 16, in the top of the reel 13. This operation can be

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effected the evening before and by morning or twelve hours thereafter, the solution will have been soaked in and will have dissolved the dried out ink in the ribbon. Fifteen to twenty-five drops of the solution, depending upon the condition of the ribbon, can be used. The ribbon is kept tight while the solution is being added. The dropper is moved back and forth across the top of the ribbon. After applying the solution, the ribbon should be tightly rewound on the other spool.

If the typewriter has a spool or reel 17 which is of the closed type, as shown in Fig. 2, the solution can be applied with the dropper by placing drops directly in the center of the ribbon, near the cross-bar 14, so that the ribbon will have a firm backing for the dropper and also in order that the solution will not stain the roller 11. The ribbon is wound while the solution is being applied with the dropper every few inches. After applying this solution to the ribbon, the ribbon is wound up tightly upon the other reel. If the typing becomes smudged or blurred, less solution is used. If the typing is too light, more solution is used.

If the solution is to be applied to a wide ribbon of a duplicating machine, the same medicine dropper is used in the manner as shown in Fig. 3 or a paint brush 19 is drawn over the ribbon 21 to distribute the solution thereover.

The solution is formed of three parts, part I, part II and part III. Part I comprises per cent by volume:

	Per cent
35 Butyl acetate -----	25
Butyl alcohol -----	10
Ethyl alcohol -----	10
Toluol -----	55

Part II comprises by volume: three parts sperm oil and one part kerosene.

Part III comprises by volume: eight parts citronella terpenes; two parts cinnamon leaf terpenes; one part dipentene; one and one-half parts oil citronella; and five parts oil lemongrass.

Once the parts have been formed, they are then mixed together in the following manner: three gallons of part I; one gallon of part II; and sixteen ounces of part III. This mixture forms the complete composition. The parts can be mixed together with any volumetric measure, such as fluid ounces, pints, gallons, or any other convenient unit according to the quantity of the product to be made up and thereby keeping the same parts throughout.

This final solution is used with the medicine

dropper or brush. It should be kept in a bottle or other suitable container and should be in an airtight manner. If used regularly, the ribbon should have a long life. It has been found that a ribbon several years old, when conditioned in this manner, provides as-good-as-new letters upon the typed sheet.

While the formula can be varied slightly according to the measures given and the method of applying the same may be departed from, it shall be understood that such variations in these measures and in the method of application shall be within the spirit and scope of the present invention as defined by the appended claim.

Having thus set forth and disclosed the nature of my invention, what is claimed is:

A solution for reviving and reconditioning faded and worn typewriter or duplicating ribbons, regardless of color or combination of colors, comprising three parts, one of said parts having twenty-five per cent butyl acetate, ten per cent butyl alcohol, ten per cent ethyl alcohol and fifty-five per cent toluol; another part having three portions sperm oil and one portion kerosene; the third part having eight parts citronella terpenes, two parts cinnamon leaf terpenes, one part di-

pentene, six and one-half parts oil citronella; said three parts being combined in the following proportions: three gallons of part I, one gallon of part II and sixteen ounces of part III.

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