UNITED STATES PATENT OFFICE.

BENJAMIN L. BEALL, OF LEXINGTON, KENTUCKY.

TYPE-WRITER RIBBON.

1,263,019. Specification of Letters Patent. Patented Apr. 16, 1918.

No Drawing. Application filed November 28, 1917. Serial No. 204,440½.

To all whom it may concern:

Be it known that I, BENJAMIN L. BEALL, a citizen of the United States of America, residing at Lexington, in the county of Fayette and State of Kentucky, have invented certain new and useful Improvements in Type-Writer Ribbons, of which the following is a specification.

This invention relates to typewriter ribbons and more particularly to an improvement over the typewriter ribbon disclosed in the patent to George E. Pelton, #1,092,856, April 14, 1914.

One of the objects of the present invention is to provide an improved simple and practical typewriter ribbon having greater durability than typewriter ribbons now in general use. Another object is to provide an improved typewriter ribbon of the above general character which will be substantially free from lint, thereby to prevent a clogging of the type. Another object is to provide a typewriter ribbon which will more easily flow through the ribbon vibrator or guide and consequently produce less strain upon the type action. A further object is to provide a ribbon of the above general character which may be manufactured at a minimum amount of expense and time. A further object is to provide an improved process of making ribbons of this character. Other objects will be in part obvious and in part hereinafter pointed out.

In manufacturing a typewriter ribbon according to this invention, I prefer to use undyed raw silk for the reason that it will absorb more ink and consequently have a longer life and a greater durability than dyed silk. This silk is first woven into the desired shape and size and is then preferably adulterated by immersion in a solution of stannic-tetrachlorid or other suitable tin solution, thereby to increase the wearing properties. This, however, does to a slight degree affect the amount of ink that can be absorbed by the unadulterated undyed silk. This may, if preferred, be done before weaving. The ribbon is then impregnated with suitable transferring media such as the usual ribbon ink.

In using a silk ribbon so treated it will more easily flow or pass through the ribbon guides or vibrator according to the type used and without wrinkling as it has a certain added weight or body. As the ribbon feeding mechanism is connected with the type actuating mechanism there will be less strain upon the type action and consequently an easier movement of the machine as a whole is obtained.

The ribbon being of very thin silk with smooth surfaces, yet to a certain degree reinforced by means of the tin solution, will have great wearing properties and always produce clear and distinct characters upon the paper and furthermore because of the freedom from lint on the surface of the ribbon, the type will be less likely to become clogged.

It is thus seen that the present invention provides a simple and practical typewriter ribbon adapted to accomplish, among others, all of the objects and advantages herein set forth.

It is realized that considerable variation is possible in the details of manufacture without departing from the spirit of my invention and I therefore do not intend to limit myself to the specific type of ribbon and its process of manufacture as herein shown and described.

What I claim is:

1. A typewriter ribbon comprising pure undyed silk woven to produce a thin close web suitably treated with a tin solution to form smooth surfaces on both sides free from lint and the entire ribbon impregnated with ink.

2. A typewriter ribbon made from undyed raw silk treated with stannic-tetrachlorid solution and woven into a web having firm smooth surfaces on both sides and impregnated with ink.

In testimony whereof I affix my signature in presence of two witnesses.

BENJAMIN L. BEALL.

Witnesses:
C. A. BARNARD,
JOSEPHINE A. ALEXANDER.