

UNITED STATES PATENT OFFICE.

BENJAMIN F. ALLEN, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN PROCESSES FOR RENOVATING PRINTERS' ROLLS.

Specification forming part of Letters Patent No. **188,765**, dated March 27, 1877; application filed February 8, 1877.

To all whom it may concern:

Be it known that I, BENJAMIN F. ALLEN, of the city of Boston, county of Suffolk, and State of Massachusetts, have invented a new and Improved Process for Treating and Renovating Printers' Rollers, of which the following is such a full, clear, and exact description as will enable others skilled in the art to apply the same.

It is well known that an inking-roller, after a longer or shorter period of use, according to the care bestowed upon it, becomes deteriorated, losing its "suction," as it is technically called, or taking qualities, and becomes rough and uneven upon its surface, and entirely worthless.

Now, an old roller, after it has become seasoned or toughened by age, is, if it can be made to work, superior to a new one in many respects, as it will bear harder usage, and may be run more rapidly without danger of softening or melting. Such a roller, therefore, if its surface can be kept in a proper condition, is much more valuable than a new one. And the object of this invention is to return to the roller, when its surface becomes deteriorated by use, that portion of its substance lost without recasting the whole roller, as is now the common practice; and the invention consists in the means and method employed for returning to the roller an equivalent of the substance lost therefrom, as will be hereinafter fully set forth.

An examination of the old and useless rollers showed that their surfaces were composed almost wholly of glue, the molasses or other saccharine substances having been nearly or quite washed out, thus leaving them rough and lacking in those properties of suction so necessary to the perfect roller.

In order to restore these rollers to a working condition it became evident nothing more was necessary than to discover some means of replacing the lost materials; and this I do by covering them with a layer of molasses,

dissolved sugar, or glucose, and allowing them to absorb the same. If rendered necessary by the nature of the inks upon which the roller has been working, they may receive a wash of an acid or alkaline nature; or the substances which it is desired to impregnate the roller with may be diluted with water in which these agencies have been placed. If in a very bad condition the rolls may be rinsed in clean water, or water having a little molasses or other saccharine matter dissolved in it, as rinsing in such water does not remove any further portion of the molasses from the roller.

The layer is then applied to the surface, and this washing, or rinsing, and the application of the saccharine matter may be repeated daily until the proper surface for work is obtained; and to retain the rollers always in a proper working condition, they should be washed at night after the day's work is finished, and then covered with a coat of molasses. In the morning before starting the presses the rollers should be sponged off with clear water, when they will be found to be in perfect working order, and to remain so as long as this method of replacing the saccharine matter lost during each day's work is continued.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent of the United States of America, the following:

The process of renovating printers' rollers by replacing the saccharine matter lost through use, by applying to them an alkaline or acid wash, and a covering of molasses, glucose, or its equivalent, substantially as hereinbefore set forth.

In testimony that I claim the foregoing as my invention, witness my hand this 31st day of January, A. D. 1877.

BENJAMIN F. ALLEN.

Witnesses:

JOHN G. JACKSON,
SOLON BANCROFT.