

United States Patent Office.

JOHN GORMAN, OF PORTLAND, MAINE.

Letters Patent No. 110,032, dated December 13, 1870.

IMPROVEMENT IN TYMPAN-SHEETS FOR PRINTING-PRESSES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN GORMAN, of Portland, in the county of Cumberland and State of Maine, have invented a new and useful Improvement in Printing, by the use of a compound, to prevent "offsetting;" and I hereby declare the following to be a full, clear, and exact description thereof.

I purpose by my improvement to obviate the necessity of frequent changes in the tissue-paper on the "tympan-sheets" of printing-presses, and to prevent the offsetting of the printed sheet when the impression is fresh and moist upon them.

The method now in use may be thus described:

On the "platen" are placed several sheets of paper, usually held in place by a clamp or band of metal, and over these are placed sheets of tissue-paper, which are usually pasted to the tympan-sheets. When paper is to be printed on both sides in the ordinary press, and for this purpose the paper is turned over or reversed, the tissue-paper receives the newly printed sheet and is marked by or receives an impression from the fresh ink. As the operation is repeated in making a number of impressions the ink accumulates on the sheet of tissue-paper, and is liable to "offset" and mark and blur the sheets next placed thereon. For this reason, after every few impressions the tissue-paper is torn off from the tympan-sheet and a new sheet of tissue-paper substituted. This involves delay, and during the taking of a thousand or two impressions, for instance, consumes much time. Moreover, at the best some offsetting will take place, even with the greatest care, and the effect is often to be seen in the appearance of faint, half-printed letters or words on printed sheets.

My invention is intended to avoid the use of the tissue-sheet, together with accompanying delay and inconvenience, and to prevent offsetting altogether.

With this in view I have ascertained that by saturating the tympan-sheet with any oily or greasy substance the offsetting of the newly printed sheet

is prevented, and when the tympan-sheet is once prepared many thousand impressions can be made without any of the delay or hindrance consequent upon the changing of the tissue-sheets, as is now the case. In a large amount of printing this would make the difference of many hours in the time employed, and would save to the printer the price or value of the tissue used in the ordinary process and the labor of cutting it to the required sizes.

When first smeared with the oily or greasy matter a few impressions are taken to remove any excess of oil and prevent thereby the oiling of the printed pages, and this done, the work of the pressman can go on without any interruption from the condition of the tympan-sheet.

I have commonly used a compound of some carbon oil with common-sweet oil, in order to render the oily substance of a light color, more easily absorbed by the tympan-sheet, and less liable to become hardened or glazed by the evaporation of volatile constituents.

Any oily or greasy substance, when properly mixed with spirits or naphtha, or any similar substance, so as to render it manageable, will answer the purpose, although I prefer the first-named mixture because of its neatness and convenience in use.

In the process of printing, the prevention of the blurring or offsetting is of great utility and importance, and my method much facilitates the business.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

The process of saturating or smearing the tympan-sheet with any oleaginous or greasy substance, when prepared as described, if required for the purpose of preventing blurring and offsetting, as set forth.

JOHN GORMAN.

Witnesses:

WM. HENRY CLIFFORD,
GEORGE E. BIRD.