No. 812,553.

PATENTED FEB. 13, 1906.

A. E. DUBÉY.

TYMPAN OFFSET PAPER FOR PRINTING PRESSES.

APPLICATION FILED MAR. 8, 1905.

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UNITED STATES PATENT OFFICE.

ALFRED E. DUBÉY, OF NEW YORK, N. Y.

TYMPAN-OFFSET PAPER FOR PRINTING-PRESSES.

No. 812,553.

Specification of Letters Patent.

Patented Feb. 13, 1906.

Application filed March 8, 1905. Serial No. 249,055.

To all whom it may concern:

Be it known that I, Alfred E. Dubéy, a citizen of the United States, residing in the borough of Brooklyn, in the county of Kings, in the city and State of New York, have invented certain new and useful Improvements in Tympan-Offset Paper for Printing-Presses, of which the following is a specification.

This invention relates to the sheet—usually of paper—which is applied over the cylinder or platen of a printing-press and on which bears or rests the printed sheet while it is receiving the impression; and the object of the invention is to provide a material or sheet for the above use or purpose which will obviate the offset of ink from one sheet to another in printing.

The advantages of offset-sheets in printing are well known to those skilled in the art and

20 will not need explanation herein.

The material for the tympan-sheet constructed according to the present invention is paper in two plies, and it has a face ply which differs in important respects from the back ply—that is to say, the back ply is hard-sized and comparatively non-absorbent, while the front or face ply is slack-sized and freely absorbent. This absorbent face ply is treated with a liquid consisting of a mineral oil.

The accompanying drawing is a somewhat diagrammatic sectional view of the offset pa-

per or sheet, on a large scale.

In the view, A designates the back ply, and B the face ply, treated with the liquid above described.

Preferably the sheet of material will be made from the highest grade of jute paper-stock, and the two plies will be felted together in the process of making the paper, in which case the sheet will be practically integral, although its two faces will be quite dissimilar in characteristics. Preferably, also, the back ply will be relatively thick and strong and the face ply relatively thin and soft. The invention is not, however, limited to the two plies forming the respective faces of the sheet or paper being felted together at the time they are formed in the machine.

They may be united by any suitable means.

The two plies or faces of the tympan-sheet have been described, one as being "hard-

sized" and the other as "slack-sized;" but these terms are descriptive only of the preferred treatment. Any treatment of the back 55 ply that will make it relatively non-absorbent and of the front ply which will make it relatively soft and absorbent will serve as an

equivalent.

It may be explained that the function of 60 the mineral oil in the face ply of the sheet is to obviate the set-off on the sheet of the bulk of the ink of the impression on a perfected sheet, as would be the case with blotting-paper, for example. The treatment with oil 65 permits only surplus ink to be offset, and this ink is taken into the fiber of the front ply by the oil. A light mineral oil will serve the purpose.

The liquid may be applied to the absorb- 70 ent face ply in any convenient way—as by spraying, for example. The liquid employed may be any mineral oil which will cause such ink as may be set off on the sheet to be absorbed into the body of the face ply in a man- 75 ner to avoid smutting the printed sheets. Of course a mixture of oils may be used.

Having thus described my invention, I

1. An offset tympan paper or sheet for a 80 printing-press, having one of its faces rendered relatively non-absorbent and its other face relatively absorbent, and having said

absorbent face treated with a mineral oil.

2. An offset tympan paper or sheet for a 85 printing-press, having a back ply of strong, hard-sized paper, and a face ply of thinner, slack-sized paper, the two plies being united and the front ply treated with a mineral oil.

3. An offset tympan paper or sheet for a 90 printing-press, consisting of two plies felted together in their manufacture, one of said plies being of strong and relatively non-absorbent paper, and the other ply being of relatively soft, absorbent paper treated with a 95 mineral oil.

In witness whereof I have hereunto signed my name, this 6th day of March, 1905, in the presence of two subscribing witnesses.

ALFRED E. DUBÉY.

Witnesses:

HENRY CONNETT, HENRY G. HOSE.