

UNITED STATES PATENT OFFICE.

ROBERT B. McEWAN, JESSIE L. McEWAN, AND RICHARD W. McEWAN, OF
WHIPPANY, NEW JERSEY.

PAPER-BOARD.

SPECIFICATION forming part of Letters Patent No. 492,927, dated March 7, 1893.

Application filed July 2, 1892. Serial No. 438,752. (Specimens.)

To all whom it may concern:

Be it known that we, ROBERT B. McEWAN, JESSIE L. McEWAN, and RICHARD W. McEWAN, all of Whippany, in the county of Morris and State of New Jersey, have invented a new and useful Improvement in Paper-Board; and we do hereby declare that the following is a full and exact description thereof.

Our invention relates to the manufacture of paper-board, box-board and the like from newspapers or other similar printed white paper.

Our object is to obtain a quality of board which is superior to the different varieties now on the market, but which can be produced at less cost than any of the said varieties of board of a quality approaching that of ours.

In the manufacture of our improved article we preferably use, on account of its cheapness, its freedom from size and its softness, printed newspaper or other printed paper possessing the characteristic properties of the ordinary paper upon which newspapers are printed, and we have found that old copies of newspapers or the over-issues can be bought up at low rates and utilized for our purpose.

We have found that our improved product can be manufactured most economically and with the best results by following the process which is described below, but it will be understood that the product can be obtained in other ways. In the process referred to we first cleanse the stock from dust and foreign matter and soak it in hot water until it is thoroughly soft. Without permitting it to cool we then transfer it to the beating-engine, and when the pulp is sufficiently beaten it is allowed to pass to the stuff-chest from which it is pumped to the making-cylinder vat, and at all times it is kept as hot as possible under the circumstances. We find that this process is expeditious because when the ink on the paper has once been softened by the

hot water it is thereafter kept soft instead of being set again by the use of cold water at any point, and the permanent particles of the ink which are not dissolved and washed away are therefore during the beating more readily subdivided with exceeding minuteness and are thoroughly and uniformly distributed throughout and blended with the fibers.

Our novel product, whether made by the process above described, or by any other which may be used in its stead, is a board which has the permanent particles of printers' ink minutely subdivided and uniformly distributed throughout its body to produce a smooth and even tint throughout, while the strength of the fibers has not been impaired by more or less expensive attempts to bleach out the ink.

We desire it to be understood that by the term "newspaper" as used herein, we mean to include paper upon which newspapers, circulars, and the like have been printed and we propose generally to use old copies of newspapers and over-issues for the manufacture of our product. It will also be understood that in practice, if so required for special purposes, we may mix with the newspapers a slight portion of other paper or of raw fiber.

We claim as our invention—

As a new article of manufacture, a paper-board formed from printed newspaper or the like, ground to a pulp and having the permanent particles of the printers' ink minutely subdivided and uniformly distributed throughout the body of the board, whereby a smooth and even tint is imparted to the board.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ROBERT B. McEWAN.

JESSIE L. McEWAN.

RICHARD W. McEWAN.

Witnesses:

AUGUSTUS W. CUTLER,
S. T. McVAY.