

UNITED STATES PATENT OFFICE.

MOSES NEWTON, OF HOLYOKE, MASSACHUSETTS.

PAPER AND MANUFACTURING THE SAME.

SPECIFICATION forming part of Letters Patent No. 238,422, dated March 1, 1881.

Application filed January 12, 1881. (No model.)

To all whom it may concern:

Be it known that I, MOSES NEWTON, of Holyoke, in the county of Hampden and State of Massachusetts, have invented certain Improvements in the Method of Manufacturing Paper, of which the following is a specification.

The object of my invention is to produce a hard stiff paper suitable for drafting purposes, patterns, boxes, &c., which shall have a thick hard body, smooth hard surfaces, and be free from liability to warp or curl.

To this end the invention consists in combining with a layer or sheet of ground wood a surfacing of manila applied on both sides, or manila on one side and other strong fiber on the other. The three layers are made united inseparably, and rolled to produce a hard compact body by a single continuous operation.

The means employed in the production of the paper may be varied as desired; but I prefer to make use of a paper-machine containing separate vats and cylinders for the different stocks, so arranged as to form the separate webs or sheets and lay them together while moist and in condition to knit together. Being thus united and then rolled or otherwise pressed the sheets combine firmly and form a hard stiff body. The wood used in the center to give body is exceedingly cheap and admits of

the paper being given great thickness at a trifling increase in the cost. The manila surfacing gives great strength, prevents the wooden center from warping or disintegrating, and when rolled or calendered presents a smooth hard face.

I do not claim, broadly, a sheet of paper composed of three layers or sheets.

Having thus described my invention, what I claim is—

1. As a new article of manufacture, the herein-described paper, consisting of the ground-wood center and the manila surfacing united therewith, the whole rolled or calendered and presenting a hard body with smooth surfaces.

2. The smooth hard paper consisting of the wood center and the manila surfacing, as described and shown.

3. The process of manufacturing paper consisting in producing a web of ground wood and two webs of manila, applying the latter to opposite sides of the former, and subjecting the compound sheet to pressure, all in one continuous operation.

MOSES NEWTON.

Witnesses:

AMOS ANDREWS,
ELLA CHILDS.