## UNITED STATES PATENT OFFICE.

EMERY ANDREWS, OF KENNEBUNK, MAINE, ASSIGNOR TO THE LEATHER-OID MANUFACTURING COMPANY, OF MAINE.

## WATERPROOFED PARCHMENT-PAPER.

SPECIFICATION forming part of Letters Patent No. 458,840, dated September 1, 1891.

Application filed March 8, 1889. Serial No. 302,523. (No specimens.)

To all whom it may concern:

Be it known that I, EMERY ANDREWS, of Kennebunk, in the county of York and State of Maine, have invented a new and useful Im-5 provement in Waterproofed Pachment-Paper, of which the following is a specification.

My invention relates to an improved parch-

mentized paper-board.

Heretofore cellulose, usually in the form of 10 paper, has been treated by immersion in a bath of sulphuric acid, chloride of zinc, or other parchmentizing-liquid, the action of which transforms the paper into what is known as "vegetable parchment," "vulcanized fiber," or "leatheroid." This product while possessing many valuable qualities has others which are objectionable, such as its susceptibility to the action of moisture, which softens and swells it and renders it unsuitable for many 20 purposes to which it might otherwise be applied, and which is difficult to overcome by reason of the impermeable nature of the material to the usual waterproofing liquids, such as oils, or solutions of gums or resins.

The object of my invention is to produce a material which, while possessing the valuable properties of such products, shall be of greater flexibility and more permeable to oils and other liquids, with which it is desirable under certain circumstances to permeate it; and it consists of a material composed of parchmentized cellulose and containing finely distributed all through its substance asbestus, or an equivalent fibrous mineral not acted upon by the liquid which served to parchmentize the

In earrying out my invention I add to pul-

verized cellulose (which is usually in the form of paper-pulp) from twenty-five to sixty per cent. of its weight of asbestus, and when the 40 same has been thoroughly ground and mixed with the paper-pulp, the mixture is run into paper in the usual way, and the paper is thus parchmentized by any of the known processes, such, for instance, as is set forth in Letters 45 Patent of the United States granted to T. and T. S. Hanna, No. 198,382, dated December 18, 1877. As such paper is parchmentized, it may be made into board of any desired thickness by the well-known process of winding it about 50 a cylinder under pressure until the desired thickness is obtained, when the tube of paper thus formed is cut longitudinally and removed, thus forming a flat sheet.

I claim-

1. A waterproofed parchment - paper consisting of parchmentized cellulose and a mineral fibrous material distributed through its substance and the whole saturated with a waterproofing material, substantially as de- 6c scribed.

2. A waterproofed parchment - paper consisting of parchmentized cellulose and fibrous asbestus distributed through its substance and the whole saturated with a waterproof- 65 ing material, substantially as specified.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 4th day of

March, A. D. 1889.

EMERY ANDREWS.

Witnesses:

C. W. GOODNOW, W. P. Adams.