

# United States Patent Office.

ELIZA DEXTER MURFEY, OF NEW YORK, N. Y., ASSIGNOR TO THE MANHATTAN PACKING MANUFACTURING COMPANY, OF SAME PLACE.

Letters Patent No. 110,583, dated December 27, 1870.

## IMPROVEMENT IN BEARING AND PACKING MATERIALS.

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

I, ELIZA DEXTER MURFEY, of New York, county of New York, State of New York, have invented an improved Bearing and Packing Material, of which the following is a specification.

### *Nature and Object of the Invention.*

My invention consists of a sponge impregnated with plumbago, and, if necessary, torn, cut, or otherwise divided, and combined with other substances and condensed, the sponge thus prepared forming a substitute for materials usually employed for packings and bearings.

### *General Description.*

The sponge is reduced, by cutting or tearing, to particles of the proper size, and is washed until all foreign matters are removed, dilute acid being employed if necessary to dissolve the particles of lime, &c., which are generally found in unprepared sponge.

After being dried the particles of sponge are introduced into a vessel with finely-powdered plumbago, and the vessel is agitated until the sponge becomes thoroughly impregnated with the powder, which should coat the surface of the sponge without filling the larger interstices, as it would then separate from the sponge when the latter is used and impair the efficiency of the material.

In order to cause a more perfect adhesion of the powder, glycerine, melted paraffine or paraffine, rubber, or balsam, in solution, or equivalent material or solution, may be mixed with the powder; or the sponge may be saturated with the liquid before being impregnated and afterward subjected to heat or pressure, or

both, to expel the superfluous fluid, molds being employed, and the pressure being increased to produce a solid block suitable for steps, bearings, &c.

The prepared sponge, either condensed or in a compressible condition, may be employed for packing joints, &c., or in journals or packing-boxes, in the same manner as the various packing and bearing materials for which I have heretofore obtained Letters Patent.

Soapstone or other powder may be employed in connection with the plumbago, and water may be used as a vehicle for carrying the powder into the interstices of the sponge.

### *Claims.*

1. As an article of manufacture, a material for packings and bearings, consisting of sponge impregnated with plumbago.

2. Sponge impregnated with plumbago and an adhesive or gummy material, substantially as and for the purpose described.

3. The process of impregnating sponge with powdered material by the use of glycerine or water, or equivalent fluid, as a vehicle for carrying the powder among the interstices of the sponge, and then extracting the said vehicle.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ELIZA D. MURFEY.

Witnesses:

CHAS. V. SCHERMERHORN,  
THOMAS PRUDEN.