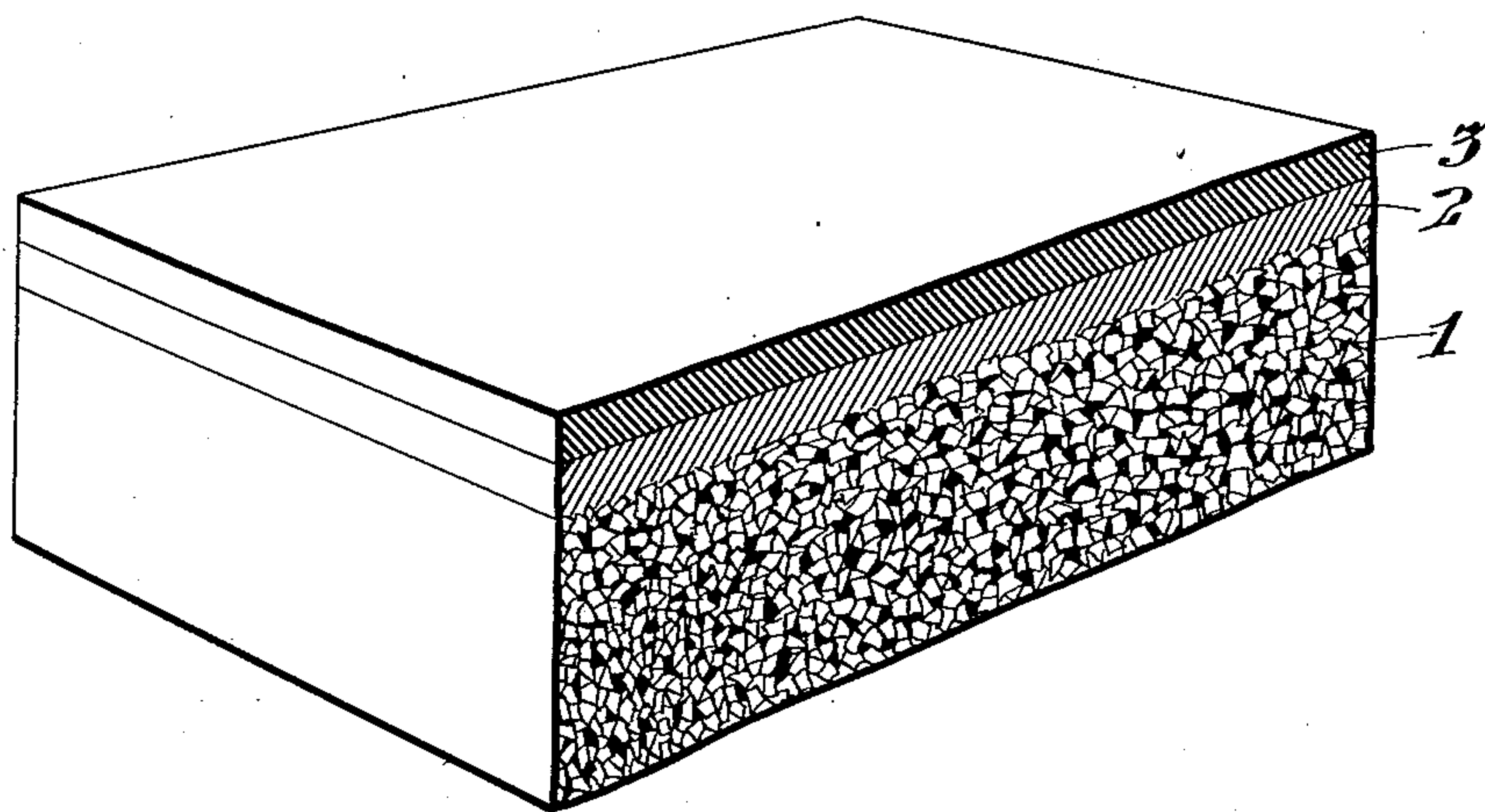


No. 898,381.

PATENTED SEPT. 8, 1908.

R. V. MATTISON.  
ARTIFICIAL FLOORING.  
APPLICATION FILED FEB. 19, 1904.



WITNESSES:

*Clifton C. Halliwell*  
*John C. Bergner*

INVENTOR:

*RICHARD V. MATTISON*  
*by his attorneys*  
*Paige, Paul & Tracy*



# UNITED STATES PATENT OFFICE.

RICHARD V. MATTISON, OF UPPER DUBLIN, PENNSYLVANIA, ASSIGNOR TO KEASBEY & MATTISON COMPANY, OF AMBLER, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

## ARTIFICIAL FLOORING.

No. 898,381.

Specification of Letters Patent.

Patented Sept. 8, 1908.

Application filed February 19, 1904. Serial No. 194,333.

*To all whom it may concern:*

Be it known that I, RICHARD V. MATTISON, of Ambler, in the State of Pennsylvania, have invented certain new and useful Improvements in Artificial Flooring, whereof the following is a specification, reference being had to the accompanying drawings.

My invention relates to a compound floor composed of two or more layers of composition differing in hardness, resiliency, cleavage and other qualities, and consisting of different combinations of a woody basis with a cementing material. By thus combining layers of differing characteristics I am able to so break up the lines of cleavage as to produce a floor which is not liable to crack even under most severe and varying strains.

In its preferred form my floor contains three distinct layers, and I will therefore describe it in this form, it being understood that under some circumstances one or other of the layers may be omitted without losing the beneficial results of my invention.

In the accompanying drawings, there is illustrated a detached section of flooring, constructed of three layers, according to the preferred form of my invention. These layers are indicated respectively by the numerals 1, 2, and 3, and I will describe the composition of each separately.

The bottom layer 1, is composed of what I term "cork concrete". This consists of disintegrated cork, in the form of cork chips of about the size of a pea, united by Sorel's cement, which consists of a mixture of oxid of magnesium with chlorid of magnesium. Only enough of the cementing material is used to unite the cork chips together, thus leaving abundant air space, and to thinly coat superficially each piece of cork, thus rendering it noninflammable by reason of the fireproof qualities of Sorel's cement. The cork concrete thus formed is very elastic and springy, free from any fixed lines of cleavage, and thick enough to resist and distribute the strains which may be put upon the floor. It also has valuable properties as a sound deadener, and as a warm non-heat conducting substance, due to the amount of imprisoned air which it contains.

The foundation layer 2, consists of wood fiber (long splinters) 15%, sawdust 10%, and

oxid of magnesium 75%. With 100 pounds of this is mixed about 200 pounds of a solution of chlorid of magnesium at 20° Baumé, and the resulting composition is spread in place and allowed to stand for 24 hours until it sets. This layer is very strong and tough, thoroughly distributing all strains. It is rather porous, and quite springy to the tread.

The finishing layer 3, consists of asbestos fiber 15%, wood flour (an exceedingly fine saw-dust) 10%, and oxid of magnesium 75%. With 100 pounds of this is mixed about 100 pounds of a solution of chlorid of magnesium at 20° Baumé. This makes a stiff paste or mortar which is spread with a trowel and straight edge, and allowed to set over night. With it may be mixed any suitable coloring matter according to the color of the floor desired. It makes a very strong, hard, smooth and impervious surface.

Instead of employing the bottom layer 1, of cork concrete, it is sometimes feasible to place layers 2, and 3, directly upon a base of floor boards. The floor thus produced is capable of resisting all ordinary strains, short of a violent shrinkage or warping of the boards. I prefer, however, to employ the concrete layer, which is capable of distributing and withstanding even such a violent shrinkage.

Under some circumstances, layer 1, may be directly combined with layer 2, but, I prefer to employ the intermediate foundation layer 2, to thoroughly break up the lines of possible cleavage, and thus produce a floor which will not crack from settling or from shrinkage of timbers or any other cause.

### Claims:

1. A compound floor consisting of a base in combination with a layer above said base, which is composed of disintegrated cork chips coated superficially with cement, said chips being coated with only enough of said cementing material to unite them firmly together but with provision of abundant air spaces between the coated chips.

2. A compound floor consisting of a plurality of layers each of which contains a woody basis embedded in Sorel's cement, the woody matter being finely ground for the top layer, and more coarse below.

3. A compound floor consisting of three layers each containing a woody basis embed-

ded in Sorel's cement; the woody basis for the top layer consisting of wood flour; that for the intermediate layer consisting of wood fiber and saw dust; and that for the bottom  
5 layer consisting of disintegrated cork.

In testimony whereof, I have hereunto signed my name, at Philadelphia, in the

State of Pennsylvania, this seventeenth day of February 1904.

RICHARD V. MATTISON.

Witnesses:

JAMES H. BELL,  
E. L. FULLERTON.