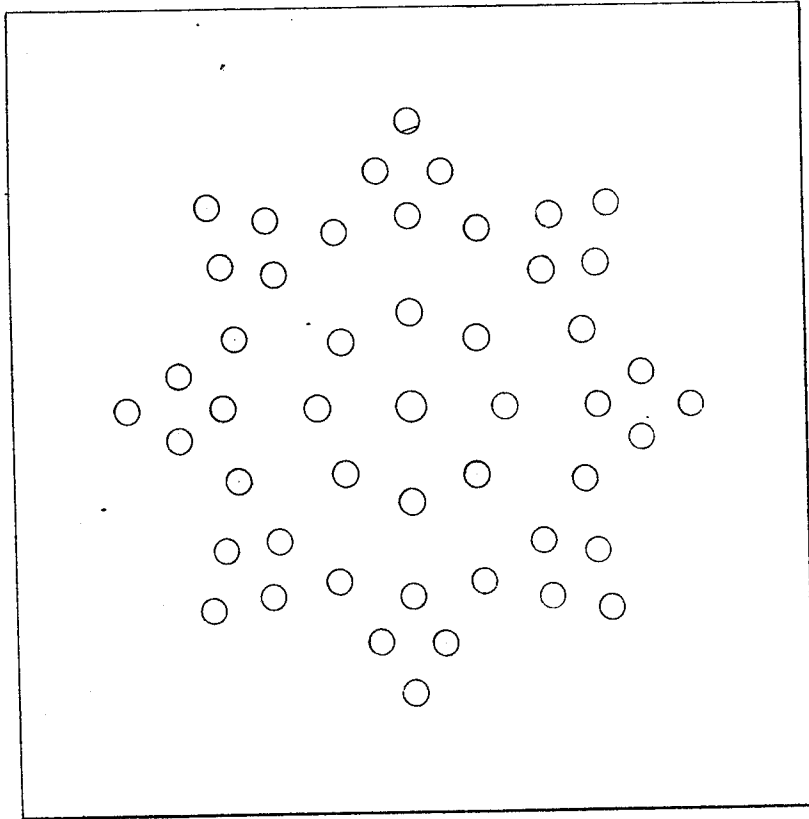


R. H. PLASS.

SEATS AND BACKS FOR CHAIRS, &c.

No. 185,576.

Patented Dec. 19, 1876.



Attest.

Fred. Benjamin

Frank McLean

Inventor.

R. H. Plass

By his attorney

Charles E. Foster

# UNITED STATES PATENT OFFICE

REUBEN H. PLASS, OF NEW YORK, N. Y., ASSIGNOR OF ONE-THIRD OF HIS  
RIGHT TO C. E. L. HOLMES, OF SAME PLACE.

## IMPROVEMENT IN SEATS AND BACKS FOR CHAIRS, &c.

Specification forming part of Letters Patent No. **185,576**, dated December 19, 1876; application filed  
November 7, 1876.

*To all whom it may concern:*

Be it known that I, REUBEN H. PLASS, of New York, city and county of New York, have invented an Improved Seat and Back for Chairs, &c., of which the following is the specification:

The object of my improvement is a seat or back for chairs, lounges, &c., of greater strength, durability, and rigidity, and less liable to be injuriously affected by the atmosphere than those of the ordinary character.

Heretofore veneers, coated paper, metal, and other materials have been employed as substitutes for cane and leather in the manufacture of seats and backs for chairs, &c., but to a greater or less degree have failed to meet the requirements of a practical article. The paper, apart from the expense of treating it, does not possess the requisite strength and durability; metal is expensive and must be covered; veneers are liable to crack and splinter, and can only be employed when several layers or sheets are combined.

My improved seat, which is liable to none of these objections, consists of vegetable fiber formed into a sheet, which is tough, elastic, light in weight, flexible, yet possessing the requisite stiffness, extremely durable, and of any required color. The sheet is made from the pulp by treating the latter, as has heretofore been commonly done, with a solution of chloride of zinc, tin, calcium, &c., separating the pulp from the liquor, consolidating, and drying slowly. Suitable coloring matter

may be added, and the pulp, after treating with the chloride, may be washed in alkaline-water, and a gum solution may be added to impart hardness. In some instances the material may be embossed while soft, so as to present an ornamental surface. The degree of hardness is determined by the strength of the materials used, and varies according to the situations in which the articles are to be used, being harder for car-seats and garden-seats than for chair-seats, lounge-backs, &c. The material thus prepared is termed vulcanized fiber, and may be used in sheets or strips, solid or perforated, and applied to either the bottoms or backs of chairs, lounges, and other furniture.

I do not claim vulcanized fiber, as that is not my invention. My invention relates only to the improvement of chair-seats, backs, &c., and consists in the application of the material herein named, in the manner set forth.

I claim as a new manufacture—

A seat or back for chairs, lounges, &c., consisting, in whole or in part, of vulcanized fiber—that is, vegetable fiber prepared by treating it with chloride of zinc, or its equivalent, consolidating and drying, as set forth.

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

REUBEN H. PLASS.

Witnesses:

JOHN WATSON,  
MICHAEL DILLON.