

No. 696,544.

Patented Apr. 1, 1902.

F. BROWN.  
PACKING.

(Application filed Sept. 25, 1901.)

(No Model.)

Fig. 1.

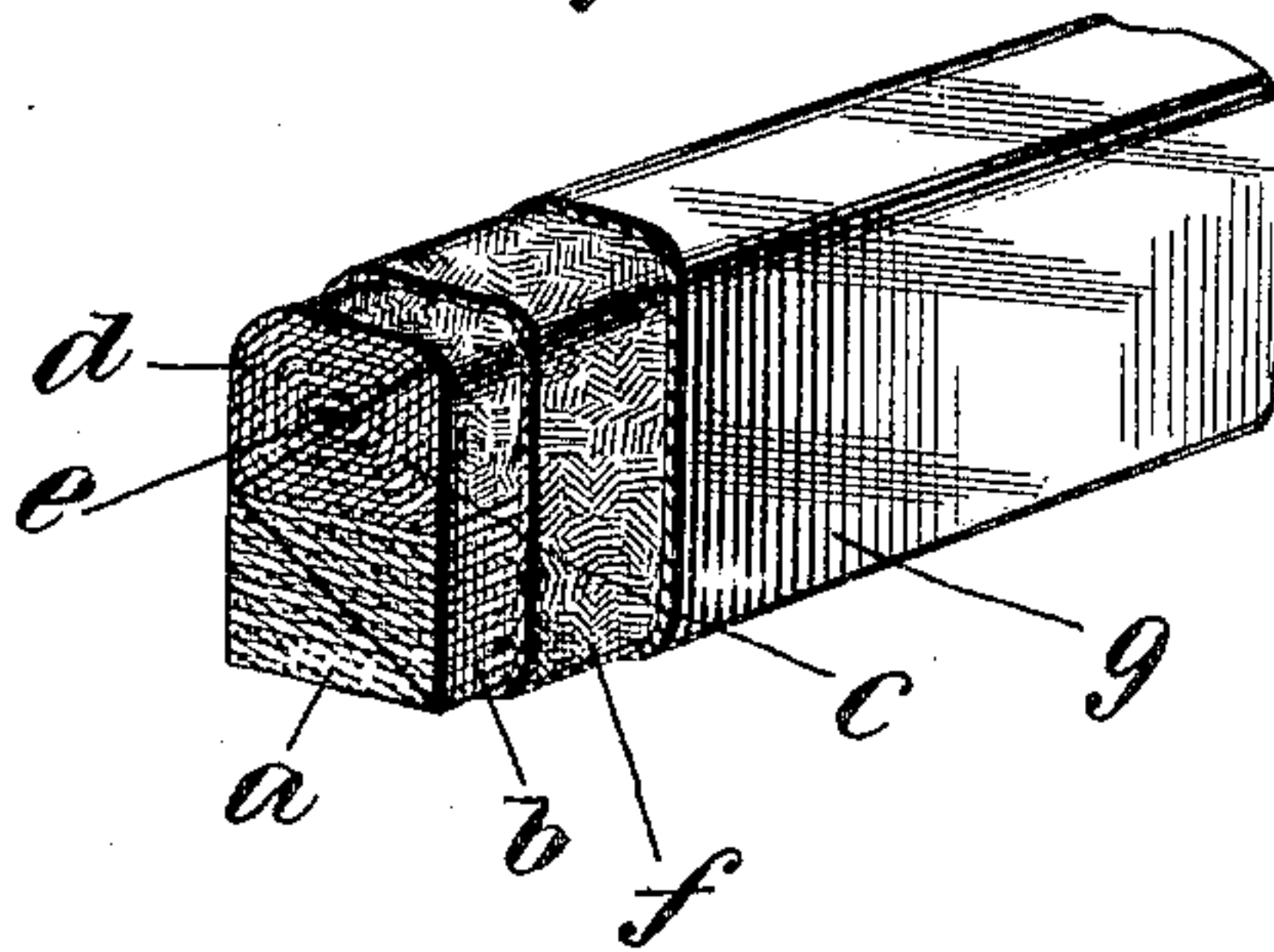


Fig. 2.

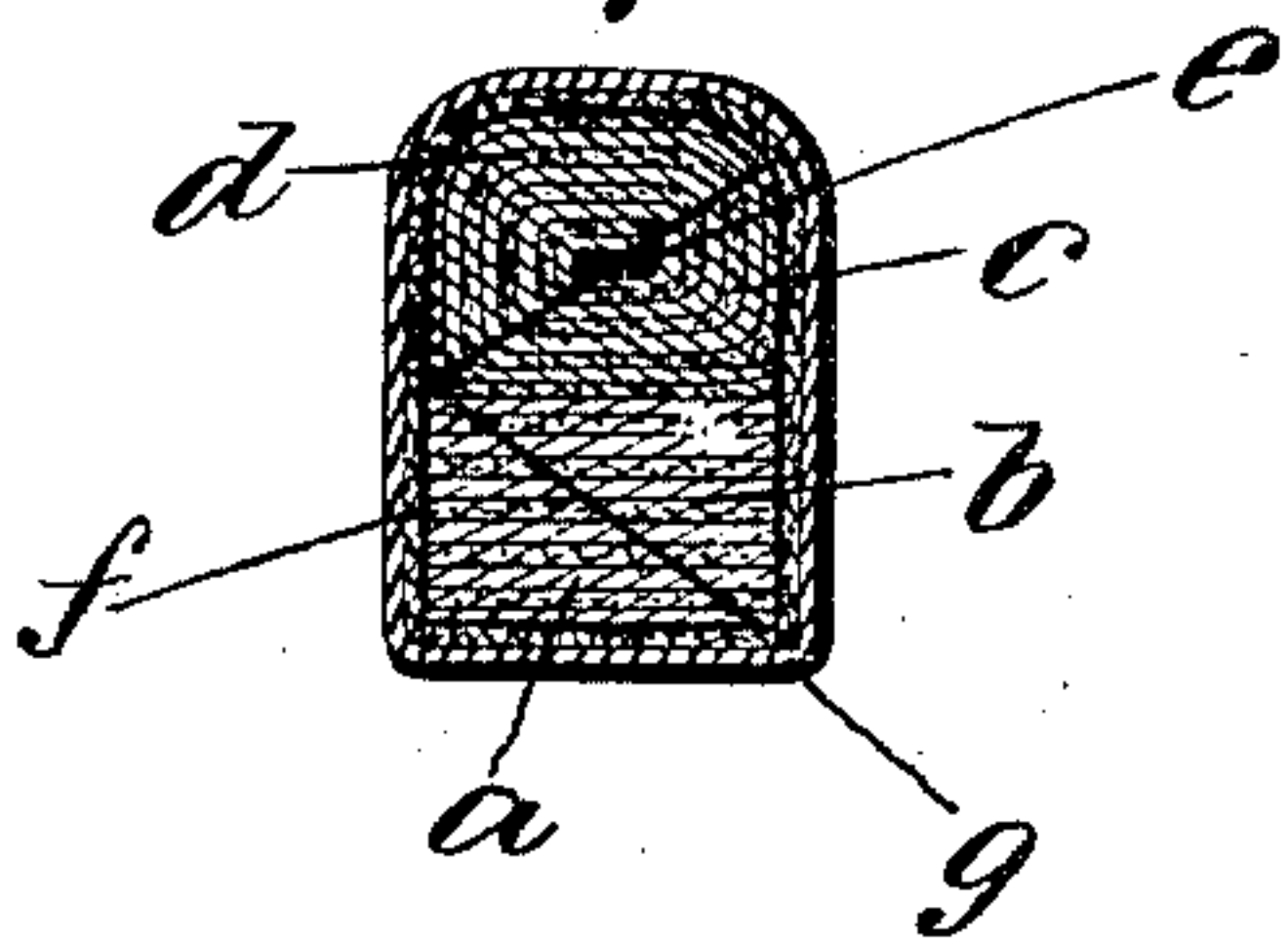


Fig. 3.

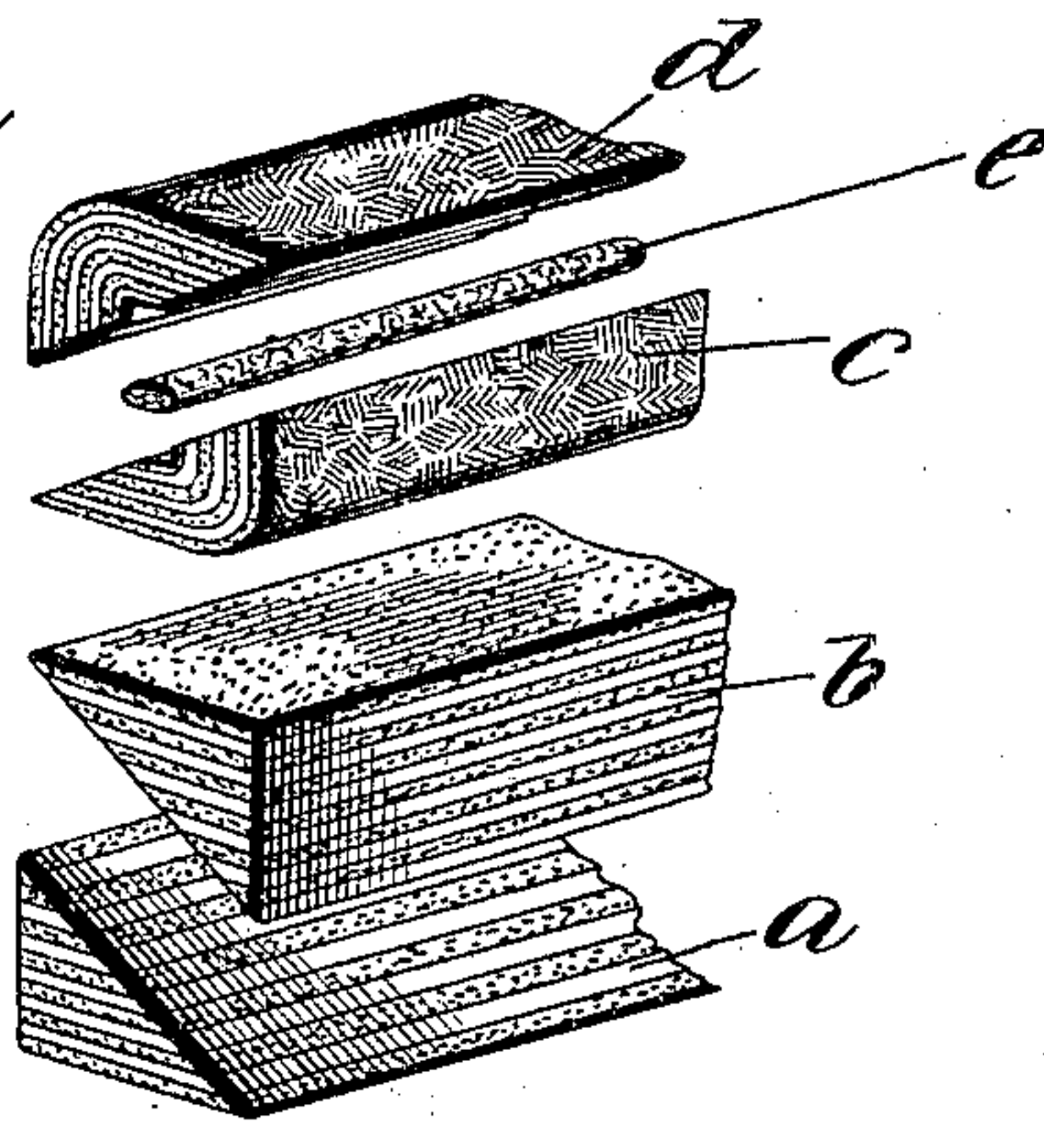


Fig. 5.

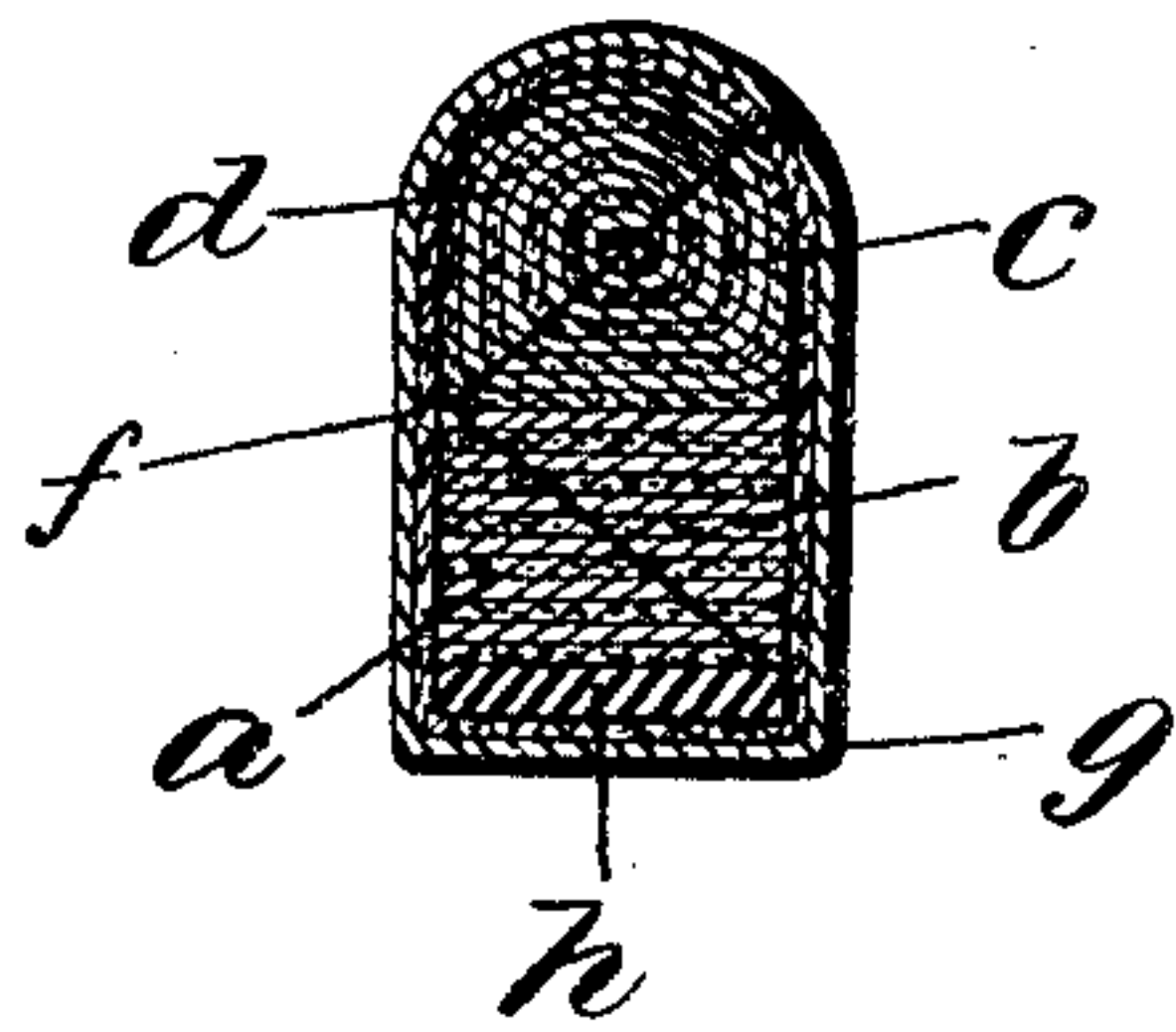
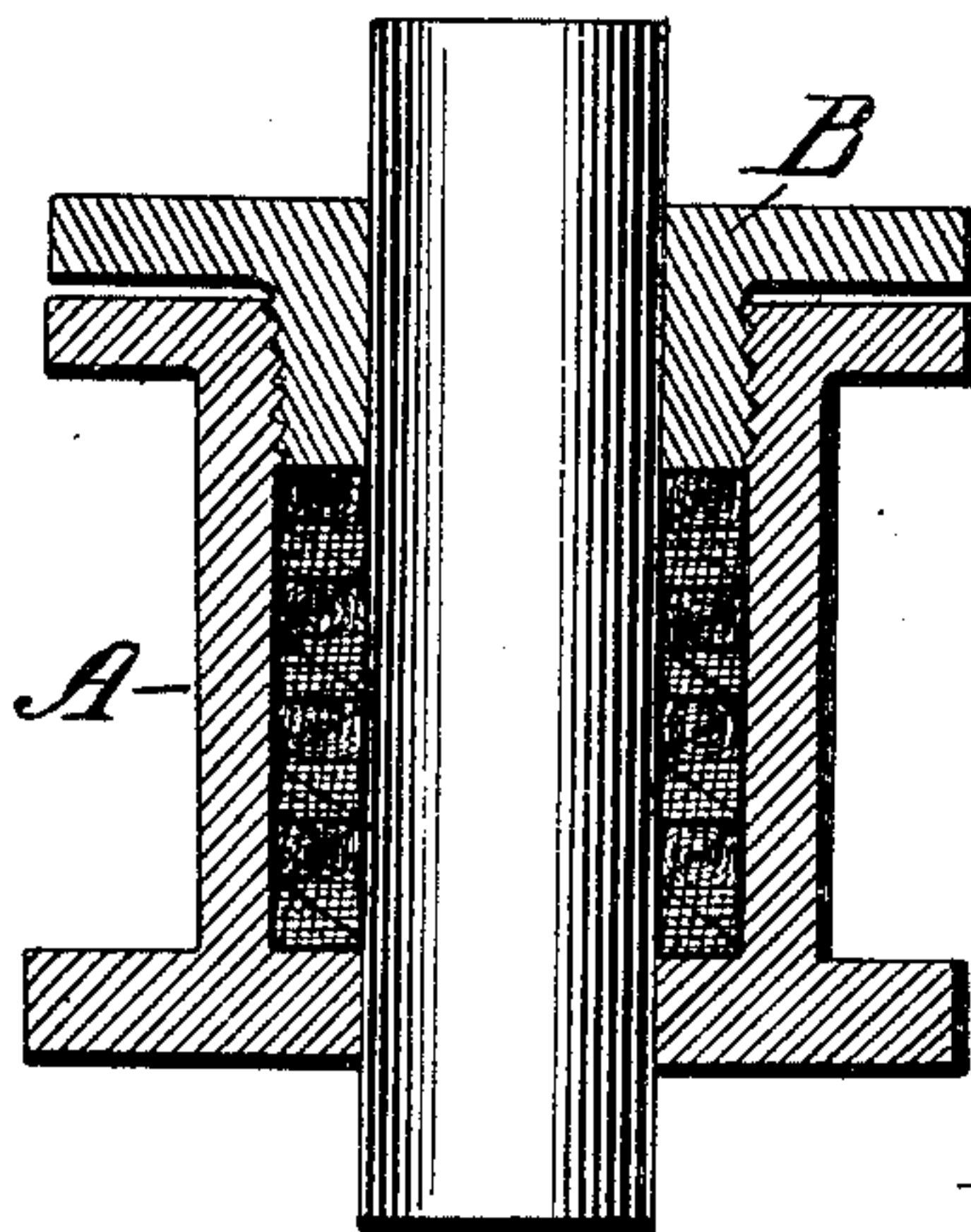


Fig. 4.



Inventor

Franklin Brown.

By  
Augustus S. Stoughton  
Attorney

Witnesses  
H. M. Gilligan



# UNITED STATES PATENT OFFICE.

FRANKLIN BROWN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO  
CLEMENT RESTEIN, OF PHILADELPHIA, PENNSYLVANIA.

## PACKING.

SPECIFICATION forming part of Letters Patent No. 696,544, dated April 1, 1902.

Application filed September 25, 1901. Serial No. 76,554. (No model.)

*To all whom it may concern:*

Be it known that I, FRANKLIN BROWN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Packing, of which the following is a specification.

My invention relates more particularly to rod-packing, the main object being to provide a superior packing of this sort which will readily adjust itself under pressure and which will permit of double expansion with less friction on the rod.

Other objects and advantages will be referred to hereinafter.

The nature, characteristic features, and scope of the invention will be more clearly understood from the following description, taken in connection with the accompanying drawings, wherein—

Figure 1 is a perspective view of a section of a double-expansion packing made in accordance with my invention. Fig. 2 is a transverse sectional view of the same. Fig. 3 represents views in perspective of the several component parts of the packing. Fig. 4 is a sectional view of a stuffing-box with my improved packing applied, showing the general arrangement of the latter after a period of use. Fig. 5 is a transverse sectional view illustrating a modification.

Having reference to the drawings, the packing-sections *a* and *b* are compact forms of alternate layers of duck and rubber, which have diagonal or inclined adjoining faces, so that when pressure is applied the sections will adjust themselves upon each other and snugly fit the rod and box without creating undue friction. Back of the section *b* I provide a sectional or divided cushion, consisting of semicircular sections *c d*, of absorbent material, which sections are also arranged with inclined adjoining faces, so as to permit of conjoint sliding movement with the packing-sections.

The cushion-sections *c d* are made of yielding material, generally in the form of convolutes of woven cotton or other absorbent material, with an inner core *e*, of hemp or its equivalent, for taking up and secreting oils or similar lubricants. There is also inter-

dispersed throughout the convolutes or layers forming said cushion-sections a liberal supply of graphite. Graphite or other lubricant is also applied between the inclined faces of the respective pairs of sections to assist the sliding action of one upon the other.

The compact but yielding packing-sections *a* and *b* and the substantially semicircular cushion-sections *c d* are inclosed in an outer casing *f*, of webbing or the like, which is preferably coated with a layer of graphite *g*.

Fig. 4 is a sectional view of a stuffing-box A, showing the packing after a period of use under extreme pressure by the gland B. It will readily be understood that by providing a divided or sectional cushion in the manner described a double expansion will result, and there will be a nicer adjustment with considerably less friction than if the cushion were made solid.

In the construction Fig. 5 I employ an additional cushion *h*, which is arranged back of the packing-section *a*. This cushion is by preference solid, and india-rubber offers certain advantages for its use. It is manifest that the presence of this solid cushion adds resiliency to the packing, and it also serves to prevent leakage of the lubricant through the packing.

It will be obvious to those skilled in the art to which the invention appertains that modifications may be made in details without departing from the spirit and scope of the same. Hence I do not limit myself to the precise construction and arrangement of parts hereabove described, and illustrated in the accompanying drawings; but,

Having described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A packing comprising the packing proper consisting of yielding sections, a severed absorbent cushion disposed back of one of said sections and having its parts arranged to slide one upon the other, and a member back of the other section designed to retain the lubricant, the whole inclosed in a textile casing, substantially as described.

2. A packing comprising the packing proper consisting of yielding sections, a severed absorbent cushion disposed back of one of said

sections and having its parts arranged to slide one upon the other, a yielding core interposed between the separate parts of said cushion, and an india-rubber cushion disposed back  
5 of the other section and acting to retain the lubricant, the whole inclosed in a textile casing, substantially as described.

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

FRANKLIN BROWN.

Witnesses:

CLEMENT RESTEIN,  
W. J. JACKSON.