(No Model.) 2 Sheets—Sheet 1.

D. E. J. WELLHOENER.

SPRING BOX SEAL.

No. 525,376. Patented Sept. 4, 1894.

Fig. 1

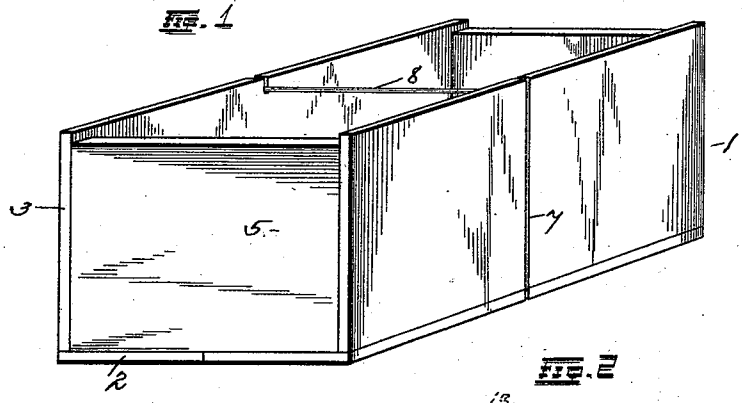


Fig. 2

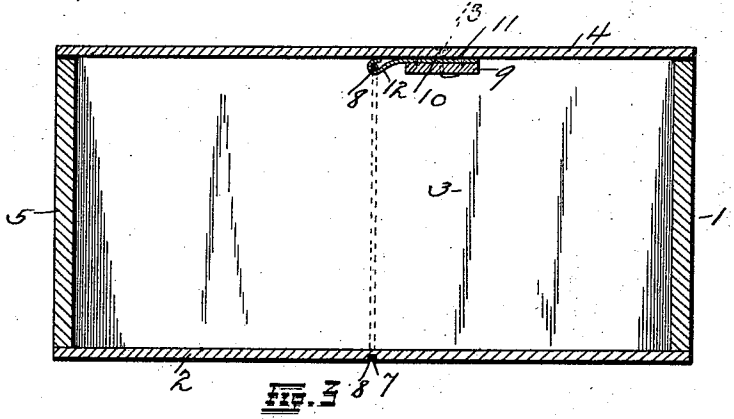


Fig. 3

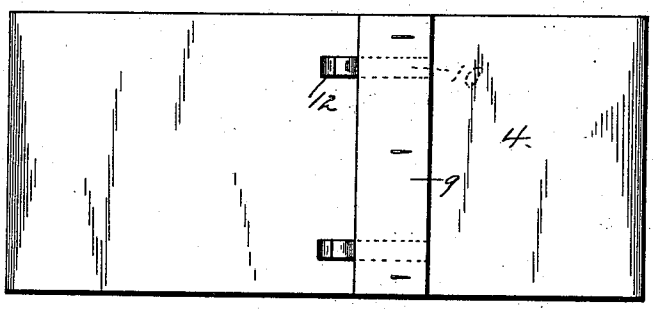
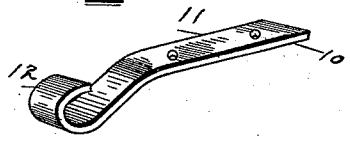


Fig. 4



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(No Model.) 2 Sheets—Sheet 2.

D. E. J. WELLHOENER.

SPRING BOX SEAL.

No. 525,376. Patented Sept. 4, 1894.

Fig. 5

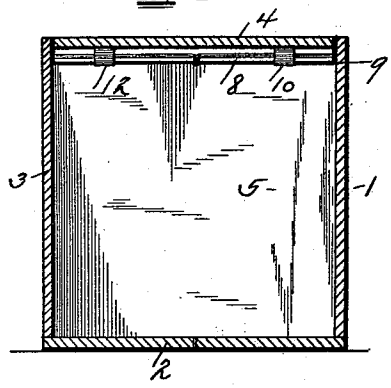


Fig. 6

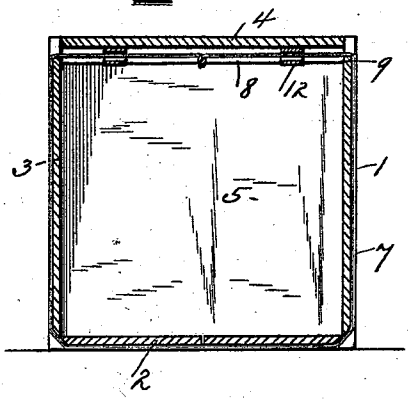


Fig. 7

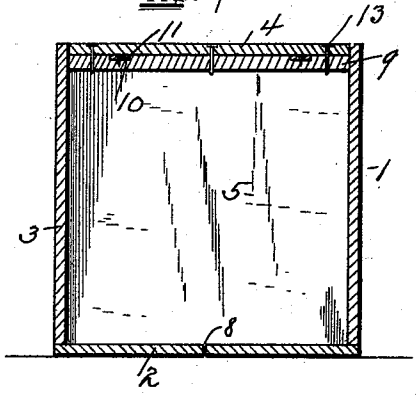


Fig. 8

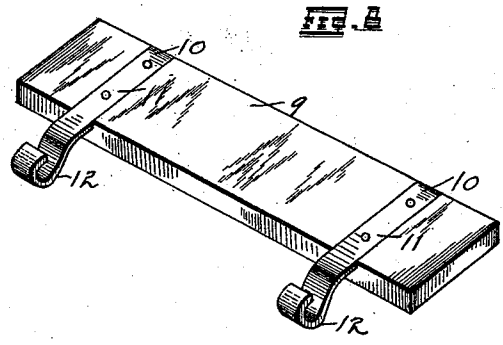
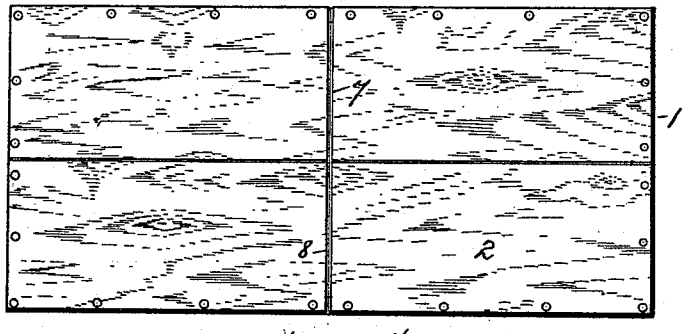


Fig. 9.



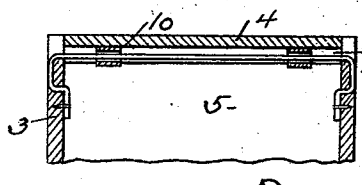


Fig. 10

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UNITED STATES PATENT OFFICE.

DANIEL E. J. WELLHOENER, OF ST. LOUIS, MISSOURI.

SPRING BOX-SEAL.

SPECIFICATION forming part of Letters Patent No. 525,376, dated September 4, 1894.

Application filed March 9, 1894. Serial No. 503,075. (No model.)

To all whom it may concern:

Be it known that I, DANIEL E. J. WELLHOENER, a citizen of the United States, and a resident of St. Louis, State of Missouri, have invented certain new and useful Improvements in a Spring Box-Seal, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in a "spring box seal," and consists in the novel arrangement, construction and combination of parts as will be more fully hereinafter set forth and described in the claims.

The object of my improvement is to construct and apply a seal which necessitates the destruction of the box lid before the contents can be removed. There are some lines of business which do not care to use the boxes the second time and the invention is especially adapted for this peculiarity of the shipping trade. It will easily be seen that the destruction and application of the seal prevents the removal of the lid except by its complete destruction, thus carrying out the idea of the invention.

In the drawings: Figure 1 is a perspective view of a box, showing the application of the binder thereto. Fig. 2 is a longitudinal vertical sectional view illustrating the parts in detail. Fig. 3 is an inverted plan view of the lid. Fig. 4 is an enlarged perspective view of one of the spring clips. Fig. 5 is a transverse vertical sectional view showing the relative location of the clips. Fig. 6 is a similar view showing the binder and its relation to the clips. Fig. 7 is an additional vertical transverse sectional view taken through the box to show the manner of securing the strip to the under side of the lid. Fig. 8 is an enlarged perspective view of the strip with the spring clips attached thereto. Fig. 9 is an inverted plan view of the box complete. Fig. 10 is an enlarged sectional view of a portion of the sides and top of the box to show the binder secured in a different manner.

Referring to the drawings: before entering into a description of my invention, I desire to state that this improvement is applicable to any kind of shipping or packing case which in its construction is rigid enough to hold the parts.

The construction of the box or case depends entirely upon the use to which it is to be put, and such construction will not therefore limit the invention to other applications. The box shown in the accompanying drawings is merely used to illustrate the ideas of my invention.

In small boxes for the shipping of medicines and analogous articles, I am enabled to piece the bottom, thus making a decided saving in the manufacture. The binding wire used makes such a bottom fully as desirable for general purposes, as a one-piece bottom.

1 indicates a box of the ordinary pattern and consisting of a bottom 2, sides 3 and lid 4 besides the ends 5 which are not affected by the application of the improvement. In this instance the lid 4 is set in flush with the upper edges of the sides 3, nails being used to secure the lid to the ends 5. The bottom 2 is simply secured to the sides and ends in the usual manner. A groove 7 is cut transversely through the bottom 2 and sides 3 as shown in Fig. 5, the groove being very shallow throughout the main portion of its length except at the lower corner where the same is deeper to secure the binder wire 8 against slipping. In this connection it is perhaps best to state that the binder need not necessarily be a wire, as cables, band metal, ropes, &c., could be used to serve the same purpose.

Fig. 5 shows very plainly the position of the binder 8 in relation to the top of the box. The groove 7 extends entirely through the upper portion of the sides 3 to allow the binder to pass under and in close proximity to the lid 4.

In Fig. 8 is shown a strip 9 into the upper side of which is secured two spring clips 10, which consist of a shank portion 11 and a hook portion 12 which is offset from the edge of the strip 9, these clips being made of spring material. The shanks of the clips are secured to the strip by the usual mechanical devices and the strip is then secured to the under side of the lid 4, preferably by small nails 13 which are clinched under said strip.

As seen in Fig. 2, the end of the clip where

it assumes the hook like form, is flush with the under side of the lid 4 so that when said clips engage the binder, it is impossible to break the connection between the two parts except by the destruction of the lid.

To insert the lid in its place, it is necessary to place it so that the outside of the hook like portions 12 of the clips 10 are against the binder, and then by a steady movement of the lid toward said binder, the clips force themselves under the binder and spring back against the lid. The nails are then inserted in the ends of the lid and the box or case is ready for shipment. It is easy to see that different numbers of binders and clips can be used in connection with one box in case it is desired but for ordinary sized cases, the construction such as illustrated in the drawings is sufficient.

Fig. 10 shows a modification of the manner of securing the binder to the box and in this connection I desire to state that the binder can be applied to the case in any desirable manner.

It is thought that this invention is decidedly new in its scope and that its possibilities are even greater than the adaptations herein shown.

The idea of my invention also contemplates the construction of the strips with clips attached for use by parties who desire to apply their own binder, but this would not in any way effect the idea of my invention.

Having fully described my invention, what I claim is—

1. An improved spring box-seal comprising spring clips secured to the under side of the box lid, and a binder passing under said lid and adapted to be engaged by said clips to prevent the removal of the same except by the destruction of the box or lid, as set forth.

2. An improved spring box seal having a binder encompassing the bottom and sides of the box, said binder secured in a shallow groove cut transversely through the bottom and sides of the box, a strip secured to the under side of the lid, spring clips secured to said strip and adapted to prevent the removal of the lid, except by its destruction, substantially as set forth.

3. An improved spring box-seal comprising a strip fixed to the under side of the lid, a plurality of spring clips secured to said strip and a binder encompassing the box and adapted for engagement by said spring clips, as set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

DANIEL E. J. WELLHOENER.

Witnesses:

HERBERT S. ROBINSON,

ALFRED A. EICKS.