

(No Model.)

3 Sheets—Sheet 1.

W. G. CHAPIN.

PACKAGE OF CORRUGATED PACKING MATERIAL.

No. 484,627.

Patented Oct. 18, 1892.

Fig. 1

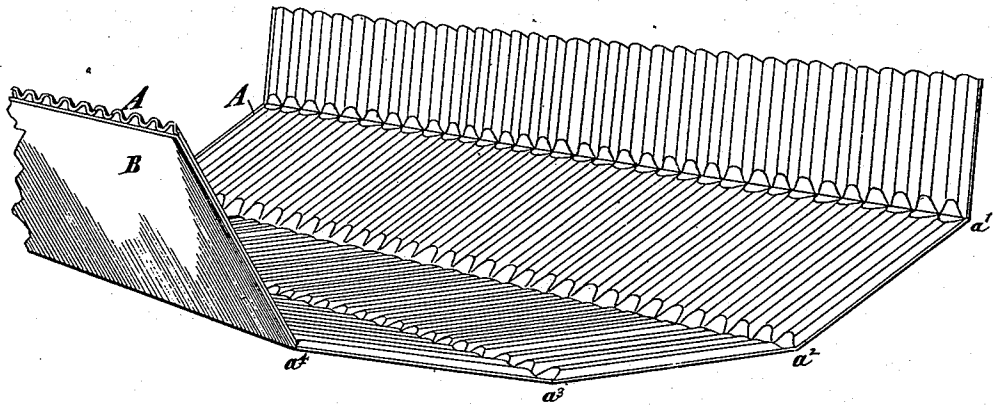


Fig. 2

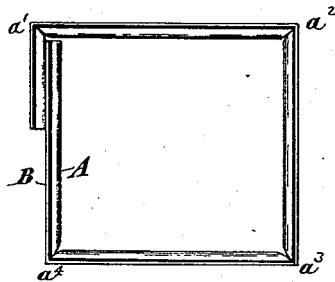


Fig. 4

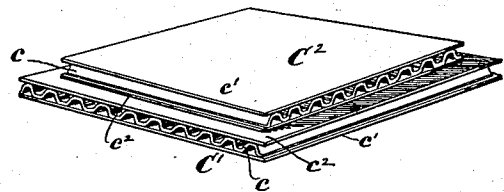
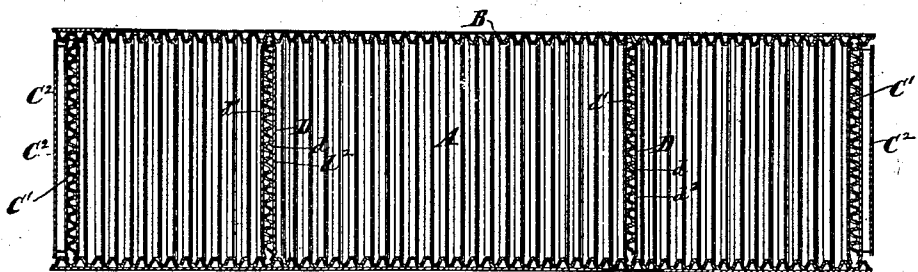


Fig. 5



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H. A. Pollock

Inventor
William G. Chapin
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(No Model.)

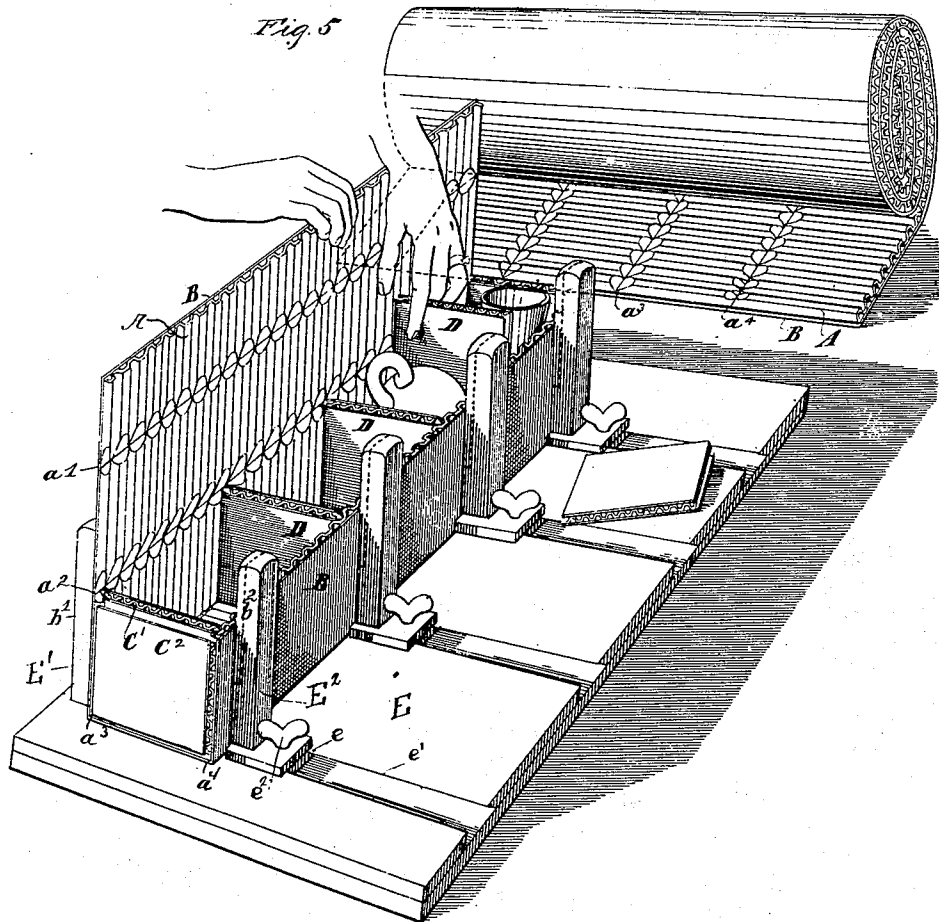
3 Sheets—Sheet 2.

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3 Sheets—Sheet 3.

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Fig. 6

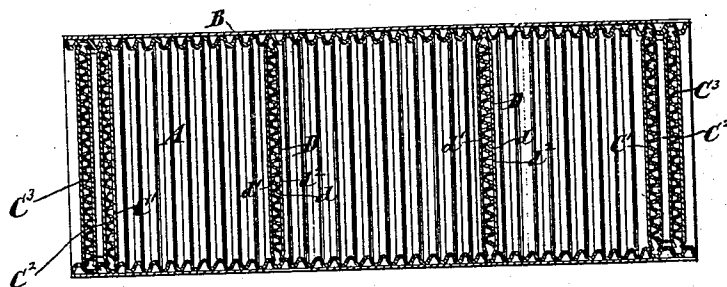


Fig. 8

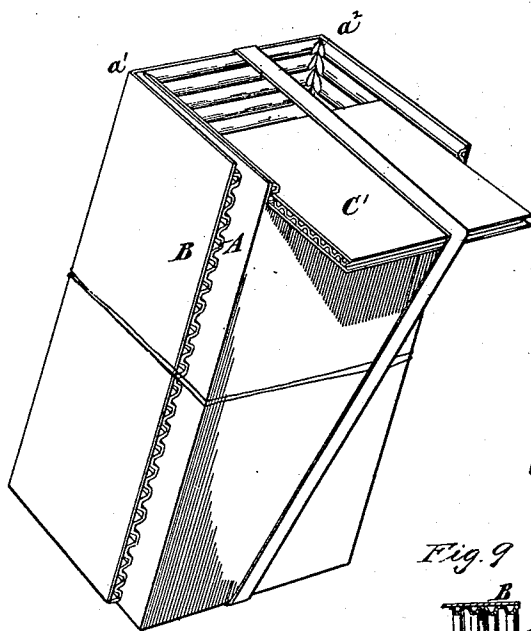


Fig. 7

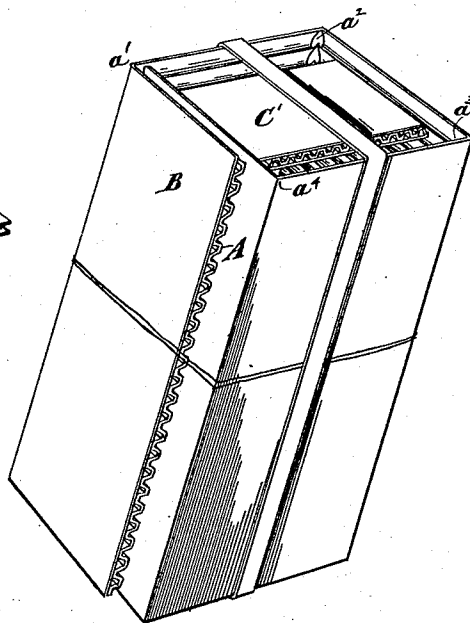
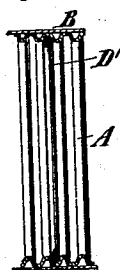


Fig. 9



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UNITED STATES PATENT OFFICE.

WILLIAM G. CHAPIN, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE
THOMPSON & NORRIS COMPANY, OF SAME PLACE.

PACKAGE OF CORRUGATED PACKING MATERIAL.

SPECIFICATION forming part of Letters Patent No. 484,627, dated October 18, 1892.

Application filed October 31, 1891. Serial No. 410,532. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. CHAPIN, of Brooklyn, Kings county, and State of New York, have invented a certain new and useful Improvement in Packages of Corrugated Packing Material, of which the following is a specification.

Heretofore packages have been made of packing material composed of corrugated strip united with a plain strip of paper or like substance, and oftentimes such material has been made into the form of boxes and had the ends closed.

The object of my improvement is to provide a superior package.

The improvement consists in the combination, with corrugated packing material, of pieces fitted in the corrugations of the corrugated material.

In the accompanying drawings, Figure 1 is a perspective view of a piece of corrugated packing material made for use in accordance with my invention. Fig. 2 is an end view of the same formed into a box or complete package. Fig. 3 is a longitudinal section of the box or complete package. Fig. 4 is a perspective view of one of the end pieces. Fig. 5 is a perspective view illustrating a manner of forming a package. Fig. 6 is a longitudinal section illustrating a modification. Figs. 7 and 8 are perspective views of a package of modified form. Fig. 9 is a longitudinal section of part of a package of another modified construction.

Similar letters of reference designate corresponding parts in all the figures.

For the body of the package illustrated in the drawings I use a piece of corrugated packing material A, of paper or other suitable substance, and with it will preferably be employed a plain strip of similar material B. The material is creased, bent, or folded transversely to the length of its corrugations, as indicated at a' a^2 a^3 a^4 . The creases are made across the corrugations, so that the packing material may be folded at any desired angle, and in the present instance at right angles. At those edges of the piece of packing material which are parallel with the length of the corrugations of the strip A this strip A will be preferably in contact with and united to

the strip B. End pieces are intended to be fitted to the ends of the package or box. These end pieces may each consist of two sections C' C^2 of a packing material composed of two pieces of plain paper or like substance c' c^2 and an intermediate piece of corrugated paper or like material c , to which said pieces c' c^2 are united by paste or other adhesive substance. The sections C' C^2 are united together and are relatively so located that the corrugations of the strip c in each section extend at right angles to those of the strip c in the other section. The section C^2 is made somewhat smaller than the section C' , so that the latter extends beyond it all around like a flange. The sections C' may be fitted into corrugations of the body of the package near the ends, after the same shall have been folded, and then the smaller sections C^2 will substantially fill the end portions of the body of the package. If preferable, however, the end pieces may be arranged with their smaller sections inward or toward the inside of the body of the package. Their larger sections will then bear against the first inwardly-projecting corrugations at the ends of the body of the package, while their smaller sections will entirely fill the spaces at the extreme ends of the body of the package. Owing to the arrangement of the sections C' C^2 of the end pieces with the corrugations of their corrugated strips crossed these end pieces will be extremely strong, and therefore very efficient in resisting the pressing inward of the body of the package. The end pieces may consist of three sections C' C^2 C^3 , two of which are larger than the intermediate of them, as shown in Fig. 6, and can positively engage with the corrugations of the body of the package.

In Fig. 7 I have shown that an end piece may be made narrower in one direction than the package, so that they may be made to expose the contents of the package.

Fig. 8 illustrates a box having one of its sides cut away, so that the end piece may be moved out through one side, like a drawer. Such a box would have the advantage due to the fact that its end piece would normally entirely close it, but yet would afford opportunity for inspection of its contents.

D designates a number of partitions or braces, which may consist of pieces of plain paper or like substance d' d^2 , with an intermediate piece of corrugated material of like substance d , united by paste or other adhesive substance. These partitions are cut of a size to fit in those corrugations which at the inner surface of the body of the packages are retiring or hollow or groove-like. The partitions may be inserted at any points in the length of the body of the package. They may have holes through them, if desired, or they may be notched in the edges or made sufficiently narrow to be capable of sliding within the body of the package.

D' in Fig. 9 designates braces consisting of wire or like material bent to form angular frames and fitted into corrugations of the body of the package.

I am unwilling to be limited to the described kind of partitions or braces or end pieces.

By my improvement I provide a very simple and desirable package for a variety of articles. The material for the body of the packages may be furnished of any dimensions and creased at intervals for packages of different sizes. It may be cut parallel with the length of the corrugations, and also transversely thereto, to form the bodies for packages of different sizes. If, for instance, it is desired to pack a bottle, the body material will be folded along the creases, the bottle laid in, two partitions inserted in the retiring or groove-like corrugations adjacent to the end of the bottle, and after completing the folding of the last side of the body of the package the end pieces will be applied, and any wrapping material or any securing device will be added to fasten the parts together. If desired, the body material may be dropped into a trough-like holder after being partly folded and for the purpose of retaining it in form for the insertion of the partitions. I have illustrated this in Fig. 5.

If an umbrella, a fan, or any similar device is to be packed, the article could be inserted in holes or notches cut in the partitions or partitions and end pieces.

It will be seen that in a very few moments packages for an endless variety of articles may be made up, and that when completed they would be superior to almost all if not all packages now known, in that they would be very light and yet immensely strong.

While I do not limit myself to any particular apparatus or means for forming a package, I find the device shown in Fig. 5 to be well adapted to the purpose, and will now describe it.

E designates a base-piece having a backing or fixed standards E' at one side and movable standards E^2 . The backing or standards E' serve to support one side of the folded packing material, and the standards E^2 serve to support the opposite side. The standards E^2 have blocks e on the lower end, which are inclined on their edges and are fitted to slide in grooves e' in the base-piece. The side walls of the grooves e' are undercut, as shown, to engage the inclines of the blocks e . The standards E^2 may be held in their adjusted position by means of clamping-screws e^2 .

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a flexible corrugated packing material, of pieces or braces fitted to opposite corrugations of the corrugated material, substantially as specified.

2. A package having a body consisting of flexible corrugated packing material and having partitions or braces fitted to the corrugations of each body, substantially as specified.

3. The combination, with corrugated packing material, of end pieces composed of several sections of corrugated material, the adjacent sections having their corrugations crossed, the said end pieces supported by corrugations of the packing material, substantially as specified.

4. A package having a body consisting of flexible corrugated packing material and having end pieces fitted to slide between the corrugations of such body, substantially as specified.

5. The combination, with corrugated packing material, of end pieces composed of two sections made of such relative sizes that the one section will extend beyond the other and between corrugations of the packing material, substantially as specified.

6. The combination, with corrugated packing material, of end pieces composed of two sections of corrugated material having their corrugations crossed and made of such relative size that the one section would extend beyond the other between corrugations of the packing material, substantially as specified.

7. A package having a body consisting of corrugated packing material and having end pieces fitted to engage between corrugations and constructed to slide along the corrugations, substantially as specified.

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

WILLIAM G. CHAPIN.

Witnesses:

CHARLES S. CHAPIN,
GEO. J. RIEGLER.