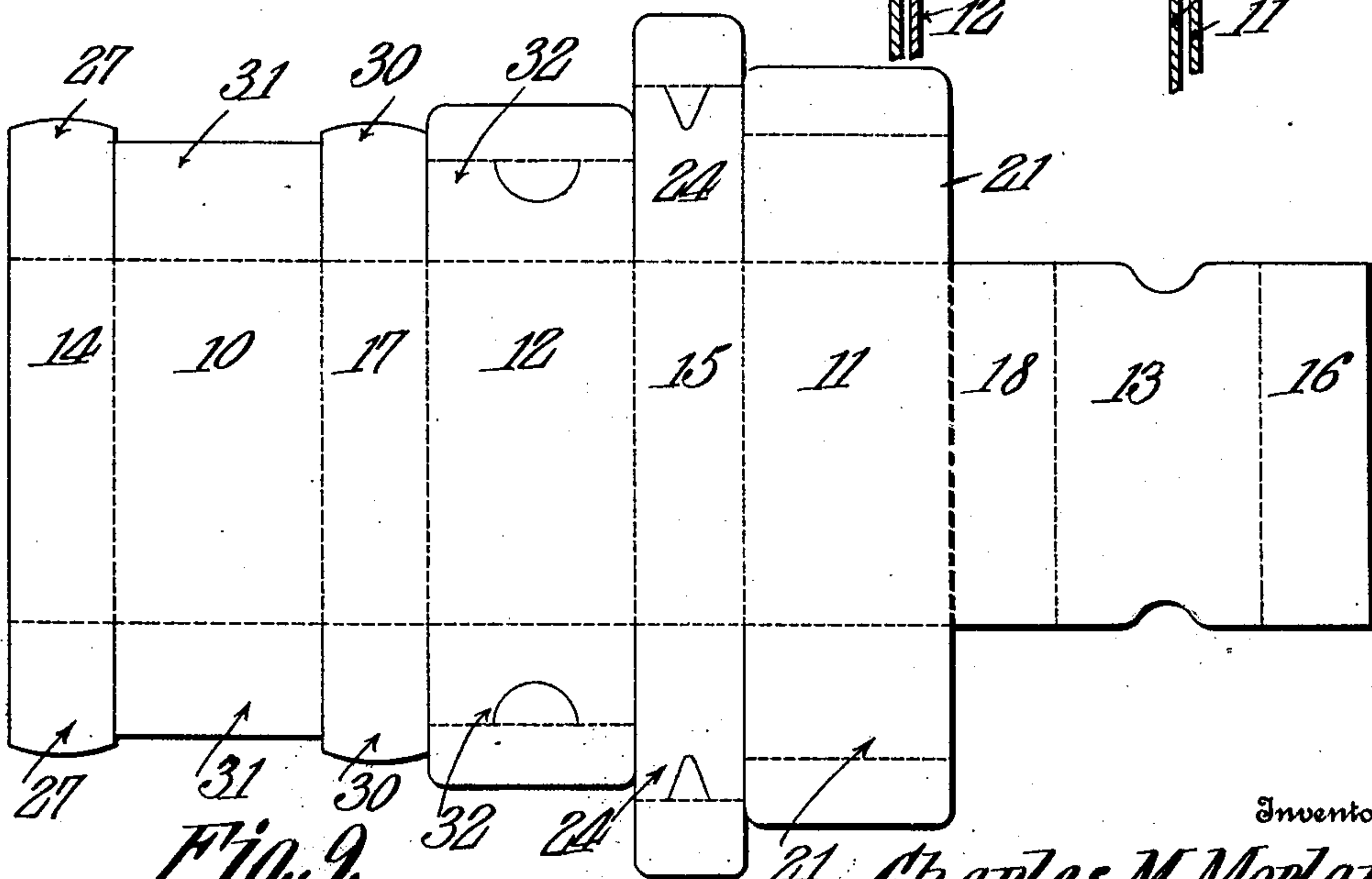
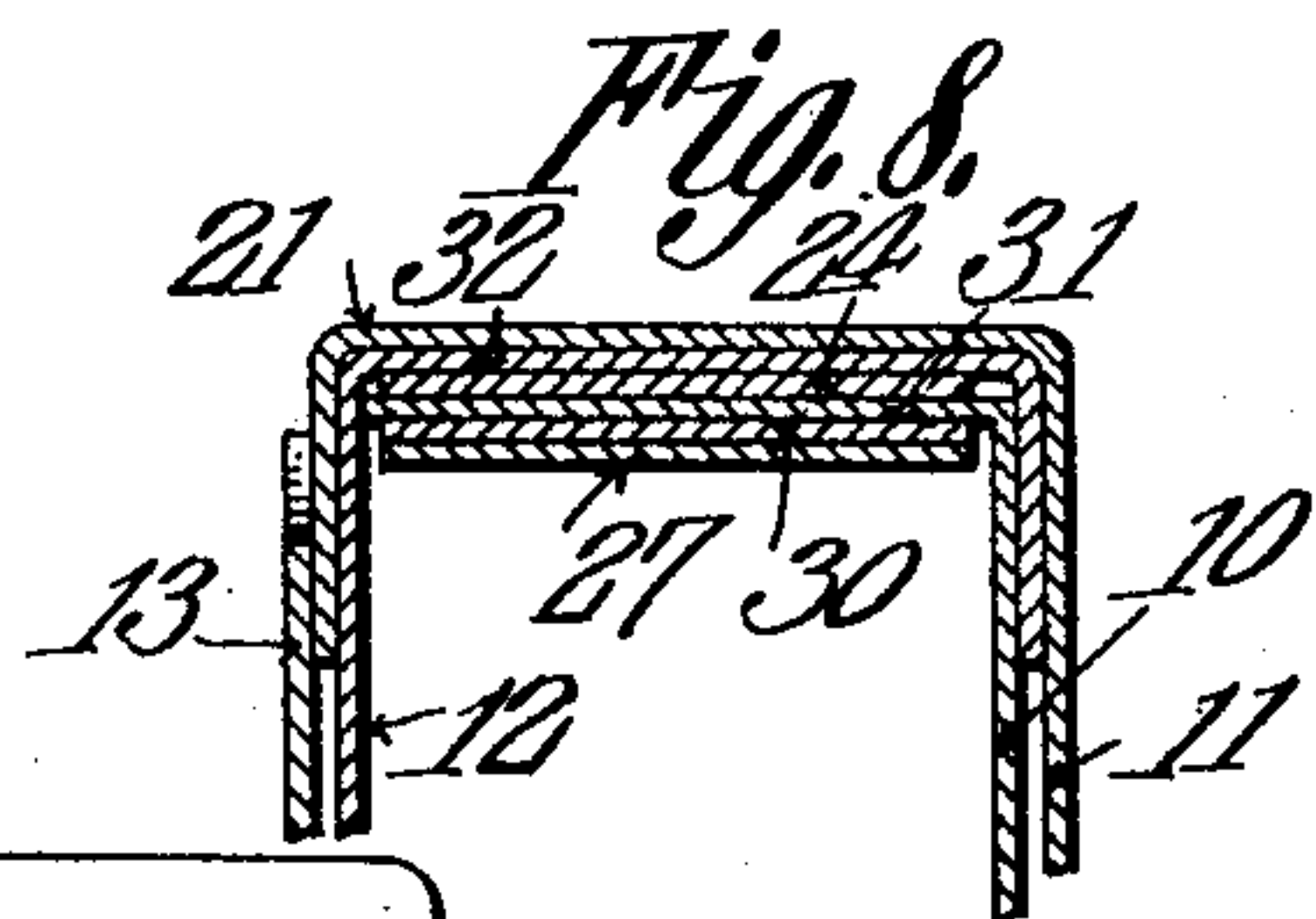
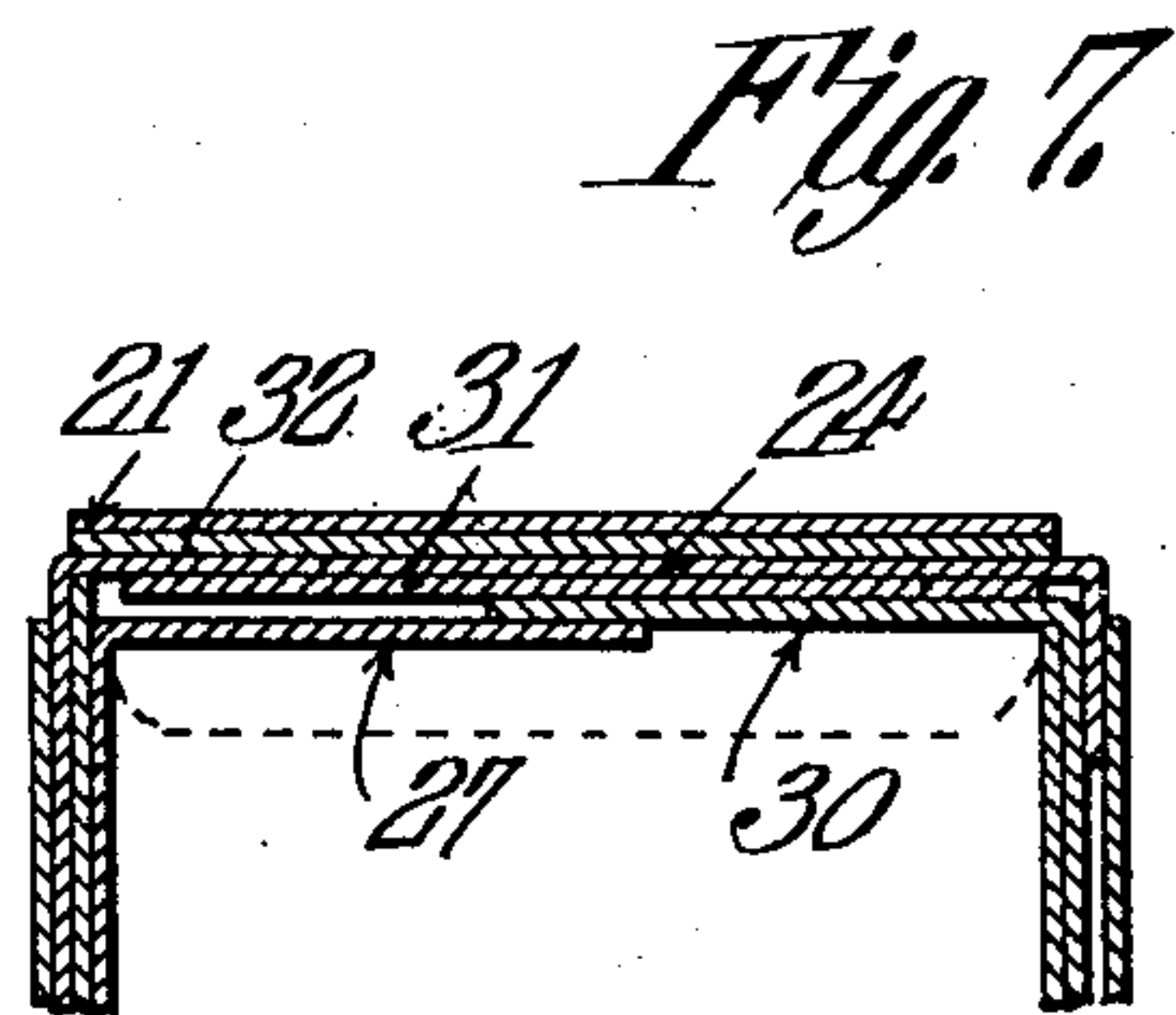
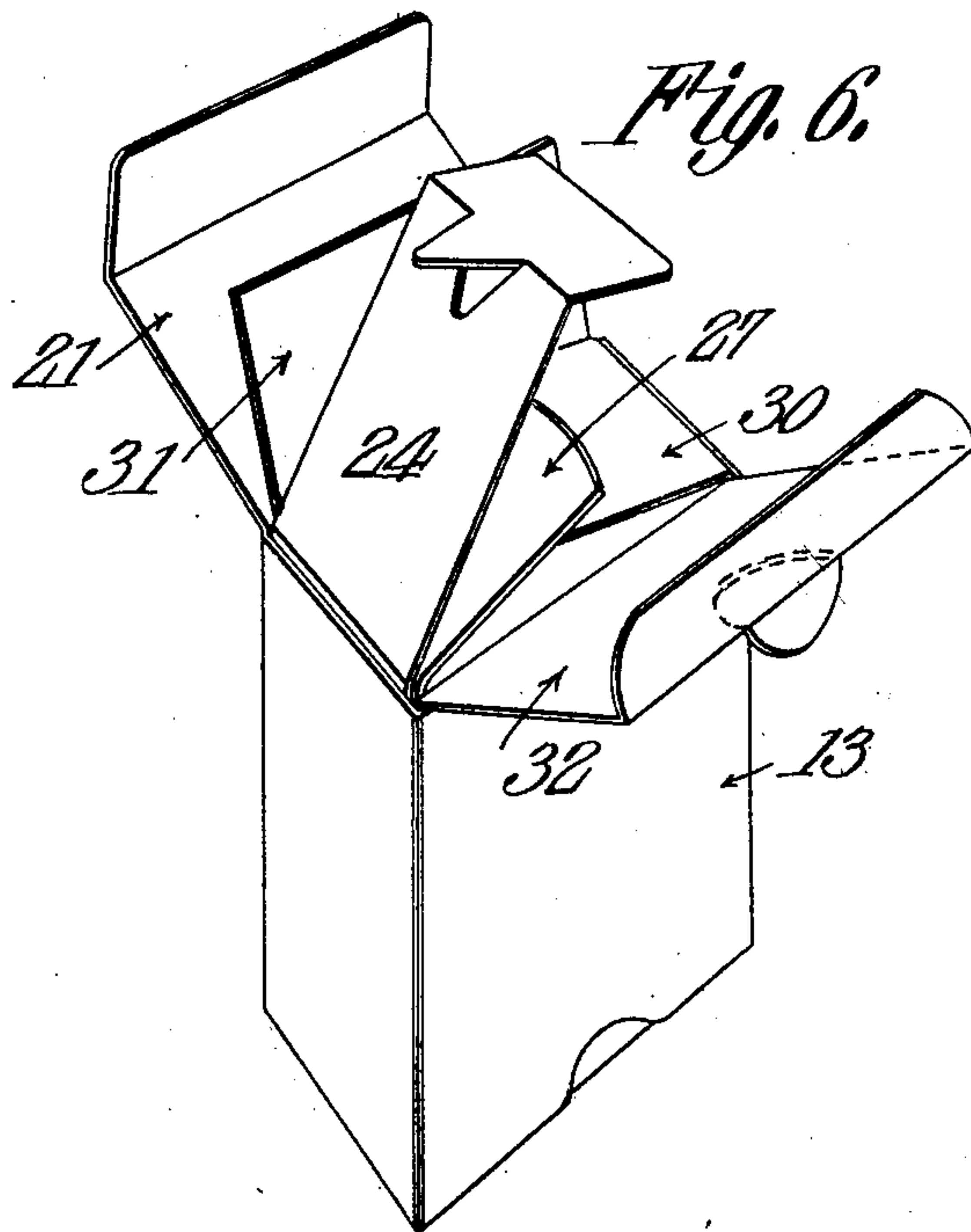


998,109.

C. M. MORLAN.
BOX.
APPLICATION FILED DEC. 2, 1909.

Patented July 18, 1911.

2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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BOX.

998,109.

Specification of Letters Patent. Patented July 18, 1911.

Application filed December 2, 1909. Serial No. 530,960.

To all whom it may concern:

Be it known that I, CHARLES M. MORLAN, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Box, (Case A,) of which the following is a specification.

It is the object of the present invention to provide an improved construction of paper box and the invention is directed to boxes of the class which are employed in packaging powdered material, either wrapped or loose, bottles and so forth, and the invention aims particularly to provide a box of this class which will not be liable to sift its contents when the contents are in the form of a powder not otherwise wrapped or packaged.

The invention further aims to provide a box of this class which may be readily assembled and will consist of but a single blank so folded as to afford a compact and tight receptacle.

The invention aims further to so construct the box, and the closure flaps and tabs thereof, that when the box is set up there will be no likelihood of the contents becoming lost due to opening or separation of the flaps and tabs.

Further the invention aims to provide a box having a plurality of sides and a closure flap integral with or secured to each side, the closure flaps being all or several provided with integral tabs which are insertible between the plies of an opposite or an adjacent side of the box so that no cracks or apertures will be presented through which powdered material may sift.

In the accompanying drawings, Figure 1 is a perspective view of one form of box embodying the present invention, the same being shown set up but only partly closed. Fig. 2 is a view similar to Fig. 1, but of the opposite end of the box and showing the same more completely closed than in Fig. 1. Fig. 3 is a vertical transverse sectional view on the line 3—3 of Fig. 2. Fig. 4 is a similar view taken from front to rear on the line 4—4 of Fig. 2. Fig. 5 is a plan view of the blank. Fig. 6 is a view similar to Fig. 1 illustrating a slightly modified form of this invention. Fig. 7 is a vertical transverse sectional view through this form when closed. Fig. 8 is a view similar to Fig. 7 but taken in a vertical plane at right angles to the plane of Fig. 7. Fig. 9 is a plan view of the blank for this form of box.

The form of box illustrated in Figs. 1 to 5 of the drawings, inclusive, is made up from a blank such as is shown in Fig. 5 of the drawings and the blank is of such form that the front, back, and side walls of the box are comprised each of a plurality of plies, each of the side walls with the exception of one side wall being comprised of two plies or thicknesses and the exceptional side wall being of three ply thickness. Of the two plies or thicknesses of the front wall, the outer one is indicated by the numeral 10 and the inner one by the numeral 11. Of the back wall, the outer thickness or ply is indicated by the numeral 12 and the inner one by the numeral 13. One side wall comprises an outer thickness or ply 14, and an intermediate thickness or ply 15 and an inner thickness or ply 16. The other side wall comprises an outer thickness or ply 17 and an inner thickness or ply 18.

Integral with the upper and lower edges of the ply 16 at the right hand end of the blank, are flaps which are indicated by the numeral 19, and in a like manner, a flap 20 is integral with the upper and the lower edge of the ply 11 and is scored as at 20^a to form a tab 20^b. This flap 20 is also slit as at 20^c to form a finger tab 20^d, which tab is integral with the tab 20^b. The ply 12 is formed at its upper and its lower edge with a flap 21 and this flap is scored as at 22 to form a tab 23. Further, the ply 17 is formed at its upper and at its lower edge with a flap 24 which is scored as at 25 to form a tab 26. The flap 24 is slit as at 24^a to form a finger tab 24^b integral with the said tab 26. Integral with the upper and lower edges of the ply 14 to the extreme left of the blank are flaps 27 which are of greater width than this ply 14 but are scored as at 28 in a line with free lateral edge of the ply to form lateral tabs 29.

All of the several plies numbered from 10 to 18 inclusive are separated or defined each from the other by suitable scoring which is clearly shown in Fig. 5 of the drawings and hence need not be specifically described and these several plies are to be folded on the score lines indicated as will now be described, in setting up the box.

In forming the box, the scored blank is folded along each score line between the several plies to form a double walled tube, the ply 16 being the innermost, with its free lateral edge resting in the fold between the

plies 11 and 15, and the ply 14 the outermost, with its free lateral edge coinciding with the folds between the plies 15 and 12.

To close the bottom and top of the box, the corresponding flaps 19 are first folded down and then the flaps 24 are folded down upon the flaps 19 and their tabs 26 are inserted between the plies 15 and 16. Next, the flaps 20 are folded down upon the flaps 24 and their tabs 20^b are inserted between the plies of the back wall of the box. The flaps 27 are then folded down upon the flaps 20 and the tabs 29 are inserted between the plies 12 and 13 constituting the back wall of the box. Finally, the flaps 21 are folded down upon the flaps 27 and the tabs 23 are inserted between the plies 10 and 11. The box is then securely closed.

It will further be understood from the foregoing that each of the several sides of the box has integral with one or the other of its plies a closure flap provided with a tab insertible between the plies of an opposite or an adjacent wall, and that by reason of said structure, no cracks are presented at the edges of the ends of the box through which powdered material might sift and furthermore the four walls of the box are so effectually braced relatively as to entirely prevent the box assuming a trapezoidal form.

In the form of the invention shown in Figs. 6 to 9 inclusive, corresponding plies are indicated by like reference numerals, as are also corresponding flaps but in this latter form of the invention the tabs 29 are omitted from the structure of the flaps 27. The flaps 24 instead of being integral with the upper and lower edges of the ply 17 are integral with the corresponding edges of the ply 15 at the middle of the blank and the ply 17 is formed with closure flaps 30 which corre-

spond to the flaps 19 in the first described form of the box. In this latter form of the invention the ply 10 is also formed with closure flaps which are indicated by the numeral 31. The closure flap corresponding to the flap 20 are indicated by the numeral 32 and are formed at the upper and lower edges of the ply 12 instead of at the said edges of the ply 11 while the flaps 21 are integral with the ply 11 instead of the ply 12 as in the former structure. In closing the box shown in Figs. 6 to 9 inclusive, the closure flaps 27 and 30 are first folded down, next the flap 31, then the flap 24 and finally the flap 32 and then the flap 21.

What is claimed is:—

A box of the class described formed from a blank scored to define portions constituting, when the blank is folded, the plies of the multi-ply front, back, and side walls of the box, the portions constituting the plies of the side walls alternating with those constituting the plies of the front and back walls, there being one of the first mentioned portions at each end of the blank, one being the innermost and the other the outermost ply of the same side wall, the said outermost ply having a closure flap integral with its upper end, two others of said side wall plies having closure flaps at their upper edges, and one of the front and one of the back wall plies having each a closure flap at its upper end, there being five of said side wall plies.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES M. MORLAN.

Witnesses:

I. C. McWILLIAM,
A. D. HAYNES.