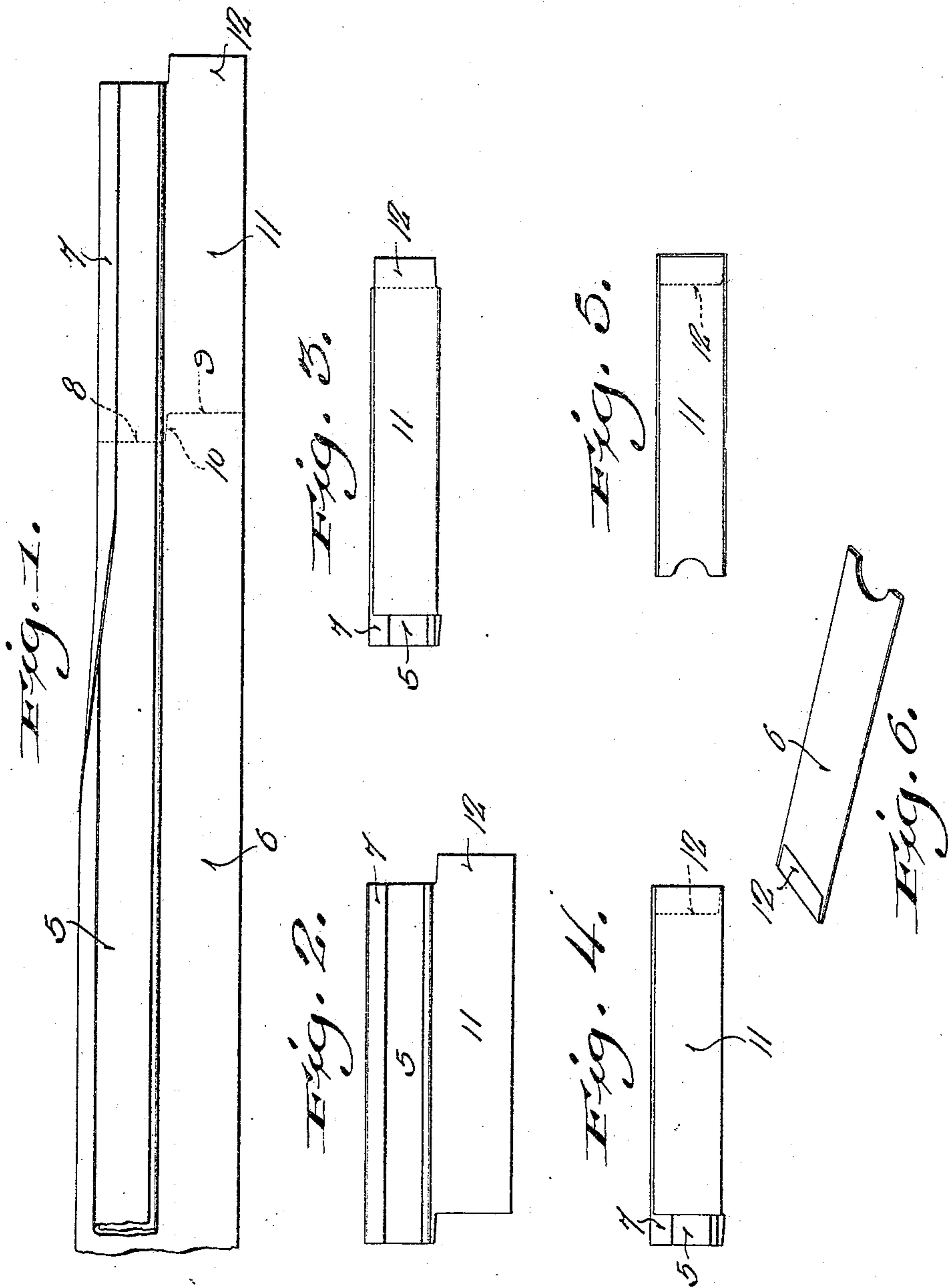


A. H. FRANKE.  
METHOD OF MAKING COMB CASES.  
APPLICATION FILED AUG. 30, 1918.

1,298,030.

Patented Mar. 25, 1919.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ARTHUR H. FRANKE, OF MANITOWOC, WISCONSIN.

METHOD OF MAKING COMB-CASES.

1,298,030.

Specification of Letters Patent.

Patented Mar. 25, 1919.

Application filed August 30, 1918. Serial No. 252,103.

*To all whom it may concern:*

Be it known that I, ARTHUR H. FRANKE, a citizen of the United States, and resident of Manitowoc, in the county of Manitowoc and State of Wisconsin, have invented certain new and useful Improvements in Methods of Making Comb-Cases; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to new and useful improvements in comb cases and other similar flat receptacles of that type formed of a body sheet of material bent to provide the receptacle, and having a cover sheet disposed thereabout to lend a finished appearance to the article, the body sheet being usually of comparatively coarse material to lend sufficient strength to the article at a minimum cost. My invention further contemplates an improved method for forming comb cases and other similarly shaped articles having covered body members.

It is in general the object of my invention to simplify the structure of articles of this character, and to improve the appearance and durability of such articles without departing from a minimum cost of manufacture.

A further object resides in the provision of a method of forming such articles wherein a most compact and neat article may be procured with a minimum number of manufacturing steps.

With these and other objects and advantages in view, which will be apparent as the description proceeds, my invention resides in the novel features of construction, combination and arrangement of parts, as hereinafter described and defined by the appended claims, it being understood that changes in the precise embodiment might be made by those skilled in the art without departing from the spirit of the invention.

In the accompanying drawings:

Figure 1 is a view illustrating progressive steps in the formation of my improved type of receptacle.

Fig. 2 is a plan view of one of the receptacles separated from the continuous strips in an intermediate step of my method.

Fig. 3 is a plan view of the device after the cover side has been folded.

Fig. 4 is a similar view after the end flap has been folded.

Fig. 5 is a plan view of the completed article.

Fig. 6 is a perspective view of the completed article.

Referring now more particularly to the accompanying drawings, the first step in forming my improved receptacle consists in feeding a continuous flattened tube of body material 5 onto a flat strip 6 of cover material, the tube engaging the cover strip longitudinally thereof and adjacent one side edge of the strip. The body tube is formed of a heavier and coarser strip of material which is previously folded in any suitable and preferably conventional manner to dispose its side edge portions in lapped relation, and in the present arrangement the width of the side edge portions is but slightly less than the width of the intermediate portion, thus forming a double wall for one side of the tube. The entire faces of the body strip and cover strip which are opposed carry coatings of paste, and thus when the body strip is folded, its side portions are pasted together.

The space between the body strip and the adjacent side of the cover strip is sufficient to form a valance flap 7, and after the folded body strip has been fed onto the cover strip, this flap portion 7 of the cover strip is folded about the adjacent edge portion of the receptacle tube to cover the same.

The strips, thus connected are then cut in suitable lengths on lines 8 and 9 disposed in offset relation and connected by a cut line 10 disposed immediately outwardly of the inner side of the body tube, with respect to its position on the cover strip.

By cutting in this manner, as shown in Fig. 2, one end of the free expanse of the cover strip is projected past the adjacent end of the body tube and its connected cover strip portions.

The next step in the formation of the article is to bend its free expanse of cover strip about the exposed side of the body tube, the width of the free expanse being sufficient to lap the flap 7.

The projected end portion of the free expanse 11, which then forms a projecting flap 12 on the article, is next bent about the end of the body tube. Thus the sides and edges and one end of the receptacle are covered in a finished manner, as shown in Fig. 4, and the final step in forming the finished article is to cut off the other end inwardly of the edge of the cover side 11, this cut being preferably concaved at its intermediate portion



to provide finger spaces in the ends of the receptacle walls.

An exceedingly simple, durable and attractive receptacle of the present nature may thus be provided with a minimum number of manufacturing steps and in a most ready manner permitting an exceedingly low cost of manufacture as compared to the methods now employed in manufacturing articles of this character.

One of the methods followed in making such articles is to provide separate dies and consequently separate cutting operations for the body sheet and cover sheets, thus requiring a considerably greater amount of labor in cutting the sheets and in folding the sheets together, than is involved in my improved method. Another method heretofore employed in forming such articles is to cut the connected cover and body sheets from continuous strips on straight parallel lines and subsequently cutting away a part of the body sheet and a portion of the adjacent end of the cover sheet to provide a flap corresponding to my end flap 12. This method also involves a considerably greater amount of labor, and an obvious wastage of material. In both methods, and particularly in the latter method, it is in practice found impossible to procure an exact uniform size of the articles and it is a decided disadvantage particularly when it is desired to print upon the articles.

In carrying out my invention continuous strips of body and cover material are cut from the usual commercial rolls and I thus avoid the wastage incidental to cutting separate sheets from the roll without adding to the cost of cutting, it being particularly noted that in carrying out my method I am enabled to use a single set of dies for all different desired widths and lengths of the finished articles.

What is claimed is:

1. That method of forming an article of the class described, which consists in feeding a continuous length of flattened body material onto a continuous strip of cover material, in simultaneously cutting lengths from said cover strip and body material transversely with a portion of one end of the severed length of cover strip extending past the adjacent end of the severed length of body material, and in then folding the

free portions of the cover strip around the adjacent edge portions of the body material.

2. That method of forming an article of the class described, which consists in feeding a continuous length of flattened body material onto a continuous strip of cover material, in simultaneously cutting lengths from said cover strip and body material transversely with a portion of one end of the severed lengths of cover strip extending past the adjacent end of the severed length of body material, in then folding the free portions of the cover strip around the adjacent edge portions of the body material, and in cutting off the other ends of the tube and cover strip.

3. That method of forming an article of the class described, which consists in feeding a continuous length of flattened body material longitudinally onto a continuous strip of cover material at one side portion thereof, in severing lengths from said cover strip and body material on offset transverse cut lines connected by a longitudinal cut line in the cover strip adjacent the inner edge of the body material whereby a portion of one end of the cover strip length extends past the adjacent end of the body material length, and in then folding the free portions of the cover strip around the adjacent edges of the body material.

4. That method of forming an article of the class described which consists in feeding a continuous length of flattened body material longitudinally onto a continuous strip of cover material at one side portion thereof adjacent its free edge, in bending said free edge portion around the body material, in severing lengths from said cover strip and body material on offset transverse cut lines connected by a longitudinal cut line in the cover strip adjacent the inner edge of the body material whereby a portion of one end of the cover strip length extends past the adjacent end of the body material length, and in then folding the free portions of the cover strip around the adjacent edges of the body material.

In testimony that I claim the foregoing I have hereunto set my hand at Manitowoc, in the county of Manitowoc and State of Wisconsin.

ARTHUR H. FRANKE.