Dec. 30, 1958 A. SVIRCHEV 2,866,542

PACKAGES FOR ARTICLES

Filed July 24, 1953

Fig. 4.

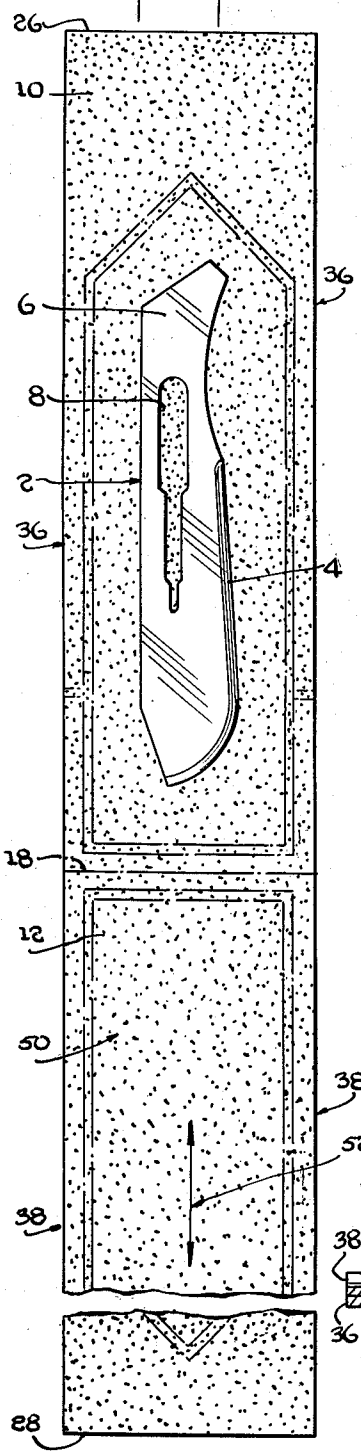


Fig. 3.

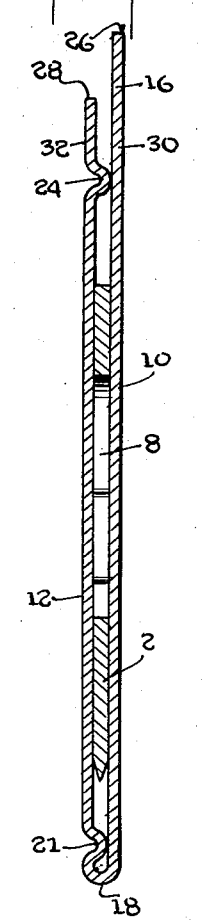


Fig. 1.

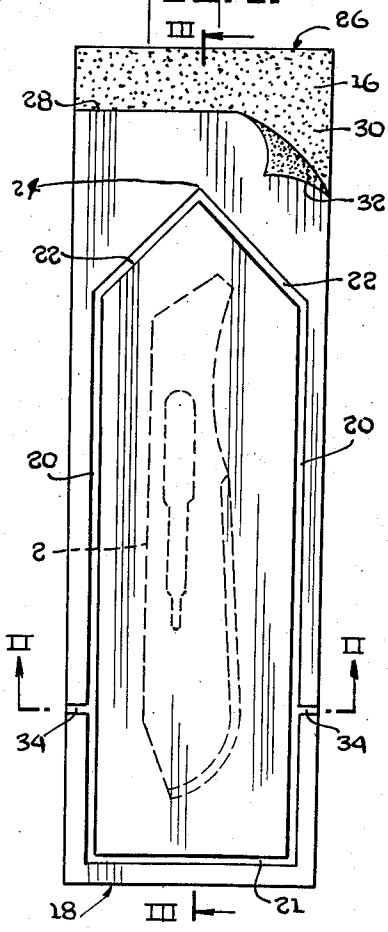


Fig. 5.

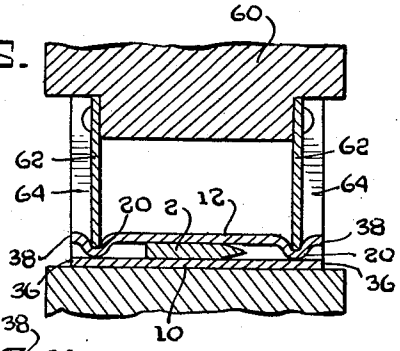
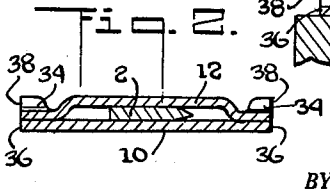


Fig. 2.



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2,866,542

PACKAGES FOR ARTICLES

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1 Claim. (Cl. 206—63.2)

This invention relates generally to packaging articles.

One of the general objects of the invention is an improved manner of sealing an article within a package forming wrapper to facilitate opening the package for access to the article packaged therewithin.

A further general object of the invention is a manner of packaging a metallic article such as a surgeon's blade and the like, within an encasement or wrapper made of foil material such as aluminum or the like whereby deterioration of the foil material is minimized.

Objects of the invention are attained by applying an adhesive coating to the inner face of the encasement material in the direction of separation of its layers.

Objects of the invention are further attained by wiping the adhesive coating applied to the inner face of the packaging material with a soft fabric, as by a buffing operation, before forming the package.

In the preferred embodiment wherein the encasement for the surgeon's blade or the like is made of a material such as aluminum foil, which is given a grain in its formation, still other objects of the invention are attained by so applying the coating so that its grain parallels that of the wrapper.

The package shown in the drawings and the packaging procedure for its production described in the specification exemplify one manner of practicing the invention and its details are not to be considered as limitative except where expressly recited in the claim.

In the drawings:

Fig. 1 is a plan view of the finished package;

Fig. 2 is a section taken on line II—II of Fig. 1;

Fig. 3 is a section taken on line III—III of Fig. 1;

Fig. 4 is a plan view partly broken away, of the initial assembly of the blade and its wrapper; and

Fig. 5 shows the final step of sealing the package.

The invention has been illustrated in the drawings and is disclosed in the specification as for packaging metallic articles such as surgeon's blades which are generally made of steel and are generally characterized by a cutting edge **4**, a rear edge **6** which is unsharpened and a slot **8** for attachment to a handle (not shown).

The invention contemplates that a sterile blade sealed in a wrapper air-tightly, be maintained sterile without deterioration or degradation of either the blade or its encasement; that opening the package be facilitated; and that the attachment of the blade to a handle be effected without requiring manual handling of the blade.

The wrapper for the blade is shown in the drawings as formed from a single strip of material of sufficient length so that the top and bottom blade encasing walls **10** and **12** may be formed by folding the strip along fold line **18**. It will be observed that by locating the fold line **18** off center as shown, wall or fold **10** is longer than wall **12** to provide the extension flap **16** which facilitates separation of the walls to open the package.

The two wrapper walls **10** and **12** are secured together to complete the package by a coating of an adhesive substance, such as vinyl, which will adhere to the wrapping material and also to a similar coating but which will not adhere to an article made of steel. Where the wrapper is formed from a single strip of material by a folding operation as shown in Fig. 4, it is preferable that the coating be applied to the wrapper before the surgeon's blade is positioned thereon. Where the wrapper is formed by assembly of separately formed walls as is within the purview of the invention, then each of the walls may be separately coated.

The surgeon's blade is sealed air-tightly within the package by the relatively narrow and continuous sealing zone which may be formed by the pressure of a heated die having a body **60** and die members **62** in the manner shown in Fig. 5 of the drawings. This relatively narrow sealing zone is conformed to the shape of the package and is shown in the drawings as comprised of the two parallel coterminous sides **20** joined by section **21** at one end and by the two angular sections **22** at the other end which meet at apex **24**.

It will be observed of this sealing zone that its sides **20** are spaced from the edges **36** and **38** of the walls **10** and **12** and from each other to receive the surgeon's blade therewithin and that the apex **24** is at the end of the package having the flap **16**.

It will further be observed that the apex of the sealing zone **24** is spaced from the end edges **26** and **28** of the two layers so as to provide the tabs **30** and **32** which can be grasped by the user to initiate the separation of the two walls **10** and **12**, as shown in Fig. 1. Points of increased resistance, such as stops or extensions **34**, may be formed on the side sections **20** of the sealing zone in perpendicular relation thereto by the die members **64** of the die in Fig. 5. These stops **34** serve to stop the separation of the two walls **10** and **12** and prevent the user from losing control of the blade **2**.

In accordance with this invention, the coating of adhesive substance **50** is applied on the walls **10** and **12** in a direction parallel to the line of separation of the layers, i. e., the line parallel to the long edges **36** and **38** of the two walls **10** and **12** in the drawings. The walls **10** and **12** are preferably of foil material having a grain, such as aluminum and the like. In the drawings, this grain is depicted as the arrow **52** and is parallel to the long edges **36** and **38** and to the line of separation of the two walls **10** and **12**. The adhesive substance **50** is one which has a grain, such as vinyl, and whose grain lies parallel to the direction in which the adhesive substance is applied. In the drawings, the grain of the adhesive coating **50** lies parallel to the grain of the walls **10** and **12** and their long edges **36** and **38**. It has been found that when the grain of the adhesive substance lies parallel to the grain and line of separation of the two walls **10** and **12**, the bond between these two walls is weakened and separation of the two is facilitated.

The adhesive coating **50** may be wiped, as by a buffing operation, to rearrange the molecular construction of the adhesive coating and to further facilitate separation of the two walls **10** and **12**. The wiping may be in a direction parallel to the line of separation between the two layers and in a direction parallel to the grain of the adhesive coating. In the package illustrated in the drawings, the wiping operation is in a direction parallel to the long edges **36** and **38** of the walls **10** and **12**, respectively.

After the walls **10** and **12** have been treated as above, the article is placed on one of these walls (such as **10**) and the other wall (such as **12**) is superimposed on the first wall. The adhesive coating on wall **10** will adhere to the adhesive on wall **12** and thus present a bond between the walls **10** and **12**. The adhesive coating **50** will minimize any deterioration of the walls **10** and **12**.

The two walls **10** and **12** may then be secured to each other along a sealing zone as described above.

In the completed package, the wrapper and the blade are protected against deterioration by the adhesive coating **50**. When the blade **2** is to be used, the extension flap **16** is grasped by the user and pulled until the tabs **30** and **32** are exposed. These tabs **30** and **32** are then grasped and the walls **10** and **12** are separated until the blade **2** is exposed. Separation is facilitated by the weakened bond between the two walls **10** and **12** caused by the application of the adhesive coating **50** in a direction parallel to the line of separation of the walls **10** and **12** and to the grain of the walls **10** and **12** which deposits the grain of the adhesive coating **50** in a direction parallel to the grain of the walls **10** and **12**. Separation is further facilitated by the wiping operation which further weakens the bond. The lines **22** converging to the apex **24** also facilitate separation because there will be less surface to separate at point **24**.

The points of increased resistance, such as stops **34**, will stop the separation of the two layers **10** and **12** and prevent the user from losing control of the blade **2**.

I claim:

A surgeon's blade package comprising a plurality of sections each formed of sheet material having a natural grain such as aluminum foil and the like and a surgeon's blade held therebetween, said sections being bonded to each other by a vinyl coating applied in the direction of the natural grain of the aluminum foil to thereby modify the bonding action of the vinyl coating and thus facilitate separation.

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