

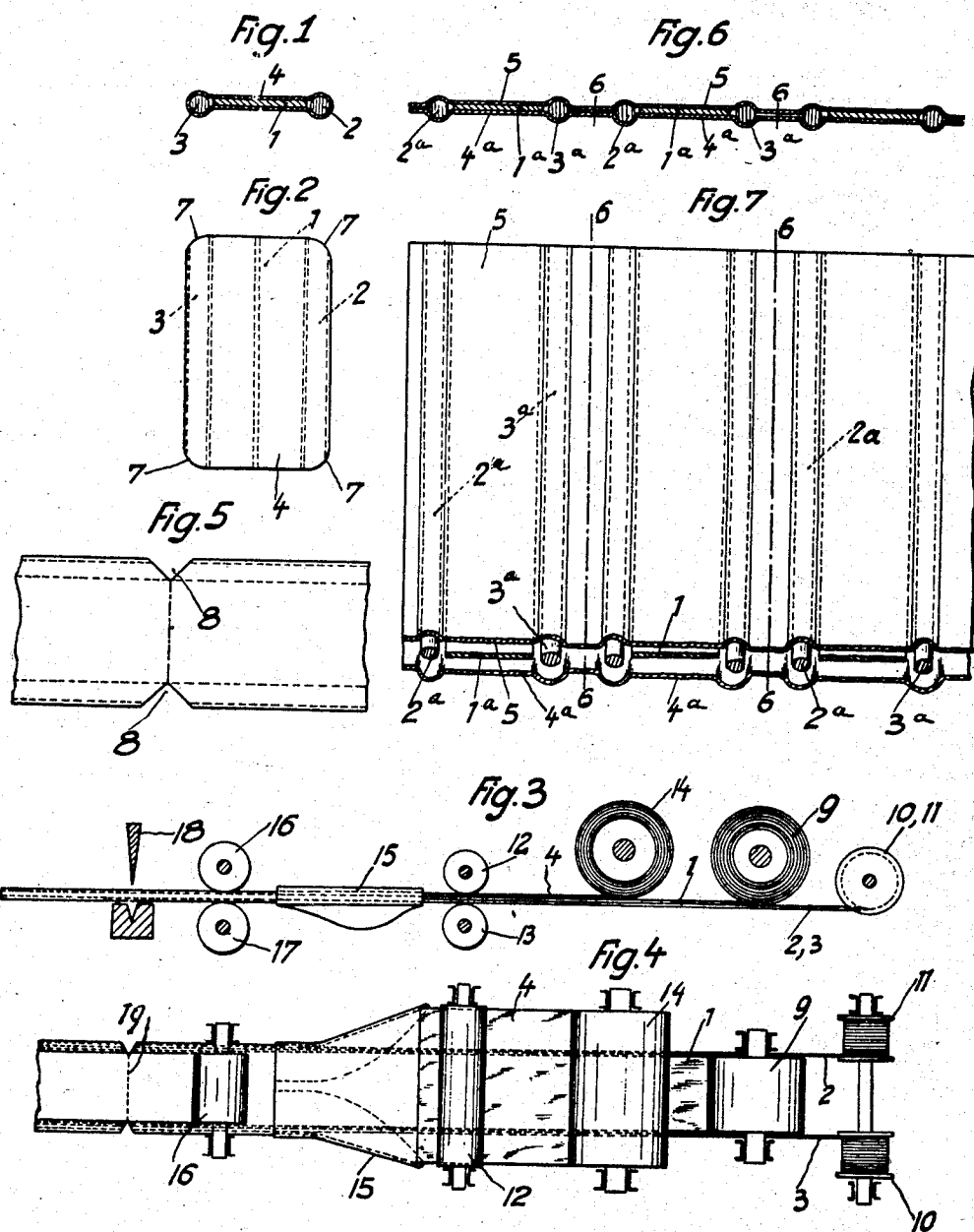
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H. HERMANN ET AL

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CLIP FOR SEALING BAGS

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Inventors
H. Hermann and
L. Rado.
By Watson & Coleman
attorneys.

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CLIP FOR SEALING BAGS

Heinrich Hermann, Stuttgart-Wangen, Germany,
and Leopold Rado, London, England

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This invention relates to clips of that kind which are employed to seal bags adapted to contain commodities of various kinds and are composed of a sleeve consisting of paper, metal foil, Cellophane or a like material which has encased therein, for form-retaining the purposes, wires which are held in position with the aid of an adhesive, and to a method of producing clips of this character.

As compared with existing clips of this nature the invention resides more particularly in the provision of a strip of pasteboard between the said wires, the encasing of the wires themselves in conjunction with the embodiment of the sleeve, and the particular method of connecting together the sleeve, the strip of pasteboard and the forming wires.

Thus, for example, in one embodiment according to the invention the sleeve consists of a single strip of material surrounding the strip of pasteboard and laterally disposed wires, whilst in a modified form of the embodiment, it is made up of two strips of material, which have the strip of pasteboard and the forming wires disposed between them. In this connection the thickness of the wires is greater than that of the pasteboard and the sleeve. The wires, are also arranged along the two edges of the clip so as to form a beading which is unsymmetrical with relation to the strip of pasteboard. To preclude the possibility of injury the wires are made shorter than the strip of pasteboard, this being effected by a rounding off or removal of the corners. The section of the clip disposed between the two wires is adapted to receive printed, embossed or similarly applied signs or characters. When using a metal foil applied by an adhesive to paper there is employed for connecting both the paper and the foil as well as the sleeve, the pasteboard and the wires a plastic adhesive which does not become hard.

It will be obvious that by reason of the features aforesaid a clip is obtained which differs with advantage from the form of clip employed heretofore. On the one hand the clip is reinforced by the strip of pasteboard provided between the two wires, whilst on the other hand, owing to the unsymmetrical disposal of the beadings towards the inner side of the clip, the sleeve is less liable to tear when bent, as it is subjected to less tension. The same object, viz., elimination of any tendency to break or fracture, is pursued by the use of a plastic adhesive as binding agent between the forming wires and the sleeve, the plastic adhesive permitting of bending of the con-

nected parts independently of one another and thus opposing any tendency on the part of the sleeve to crack and break.

The method of producing the clip according to the invention will be described in conjunction with the accompanying drawing, in which

Fig. 1 is a cross-section of a clip according to the invention.

Fig. 2 is a plan view of the clip.

Figs. 3 and 4 illustrate diagrammatically in elevation and plan view respectively a form of apparatus for producing the clip according to the invention.

Fig. 5 is a detail illustrating the method of shortening the wires.

Figs. 6 and 7 are cross-sectional and plan views respectively illustrating another method of producing the clips.

In the drawing, 1 is the strip of pasteboard, 2 and 3 are forming wires, and 4 is the sleeve consisting of paper, metal foil or the like, or also combinations of these materials, which sleeve holds the pasteboard and the wires together by means of an adhesive. The wires form beadings along the edges of the clip, viz., in unsymmetrical fashion, the beadings being larger toward the one side, i. e., the inner side, of the clip than towards the other side, i. e., the visible side when the clip is in use, so that the material of the sleeve will not break or tear when bent. The part of the sleeve situated between the wires can be furnished with printed, embossed or other signs, characters or designs. By the formation of the clip in the above described manner protection is given to the embossed designs on the surface of the sleeve as such designs will lie below the plane of the wires and, therefore, will be protected against abrasion by contact with other bodies. If the sleeve is composed of a metal foil, particularly if applied to a paper base, it is desirable to stamp or emboss the foil beforehand in order to make it more yielding and extensible. The binding agent for all parts requiring to be connected consists of an adhesive which remains plastic or elastic, for example a vinyl acetate or a cellulose derivative with a non-evaporating plasticizing agent.

As shown in Fig. 2, the wires are shortened at the four ends 1. This shortening is performed, for example, by first making a V-shaped incision at the point where the clip is to be severed from a continuous length of clip material, for example at the point 2 in Fig. 5, and thereupon separating the clip from the length.

The production of the clips described in the above takes place as follows:

- The pasteboard is allowed to run off in suitable width from a roller 9 (Figs. 3 and 4), and the two wires forming the edges of the clip are drawn from two further rollers 10 and 11 between the rollers 12 and 13. A roller 14 supplies the material for the sleeve, which is previously gummed or furnished with an adhesive, this material then being wrapped in continuous operation about the pasteboard and the wires by a folding device 15 and thereupon joined together by the adhesive under pressure of the rollers 16 and 17. If desired, the latter can also be designed as printing or embossing rollers for the purpose of producing signs or characters on the material of the sleeve in continuous operation. The single clips are separated from the length of material thus produced by a cutting device 18, and if desired they can be furnished with a preliminary bend.

In Figs. 6 and 7 there is illustrated a method of producing clips, in which a plurality of adjacently disposed lengths of clip material, each comprising the wires 2a and 3a and the strips of pasteboard 1a, are produced in one operation between two outer sheets 4a and 5a, and are then separated at certain points 6 in the longitudinal direction.

What we claim as new and desire to secure by Letters Patent is:

1. In a clip of the character described, an outer wrapping composed of any of the following materials: paper, metal foil, Cellophane, wires encased within the said wrapping and forming the longitudinal edges of the clip, and a strip of pasteboard disposed between the said wires, the parts of the clip being held together by a permanently plastic adhesive, permitting transverse bending of the clip without breaking of the wrapping.

2. In a clip of the character described, an outer wrapping, wires encased within the said wrapping and forming the longitudinal edges of the clip, and a strip of pasteboard disposed between the said wires, the said wires being shorter at both ends than the strip of pasteboard.

3. In a clip of the character described, an outer wrapping, wires encased within the said wrapping and forming the longitudinal edges of the clip,

and a strip of pasteboard disposed between the said wires, the clip having the corners removed to foreshorten the wires in relation to the strip of pasteboard.

4. A method of producing clips of the character described, which consists in disposing wires along the longitudinal edges of a strip of pasteboard, applying a wrapping material to encase the said wires and the said pasteboard, connecting the parts by an adhesive, making V-shaped incisions on either side of the finished material at the points where the single clips are to be severed, and thereupon severing the clips at these points.

5. A method of producing clips of the character described, which consists in encasing strips of pasteboard having wires disposed along their longitudinal edges between two outer layers of wrapping material, connecting the parts by an adhesive, separating the material thus produced into single strips by cutting the said material intermediately of the said strips of pasteboard, and thereupon severing the clips in desired size from the said strips of material.

6. In a clip of the character described, an outer wrapping, wires encased within said wrapping and forming longitudinal edges for the clip, a strip of pasteboard disposed between the said wires, and a permanently plastic adhesive securing the pasteboard, wires and wrapping together, the plastic character of the adhesive functioning to permit bending of the wrapping and pasteboard without tightening and tearing the wrapping.

7. A clip of the character described, comprising an outer wrapping, wires encased within said wrapping and forming the longitudinal edges of the clip, a strip of pasteboard disposed between said wires, an embossed design of a decorative or other character upon one face of said strip of pasteboard, the said wires having a thickness greater than that of the combined thickness of the pasteboard and said wrapping whereby the embossed designs are protected by said wires, the said clip being adapted to be transversely bent in use.

HEINRICH HERMANN.
LEOPOLD RADO.