

Aug. 8, 1961

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2,994,902

POSITIVE PRINT PROCESSING RECEPTACLE

Filed May 9, 1960

2 Sheets-Sheet 1

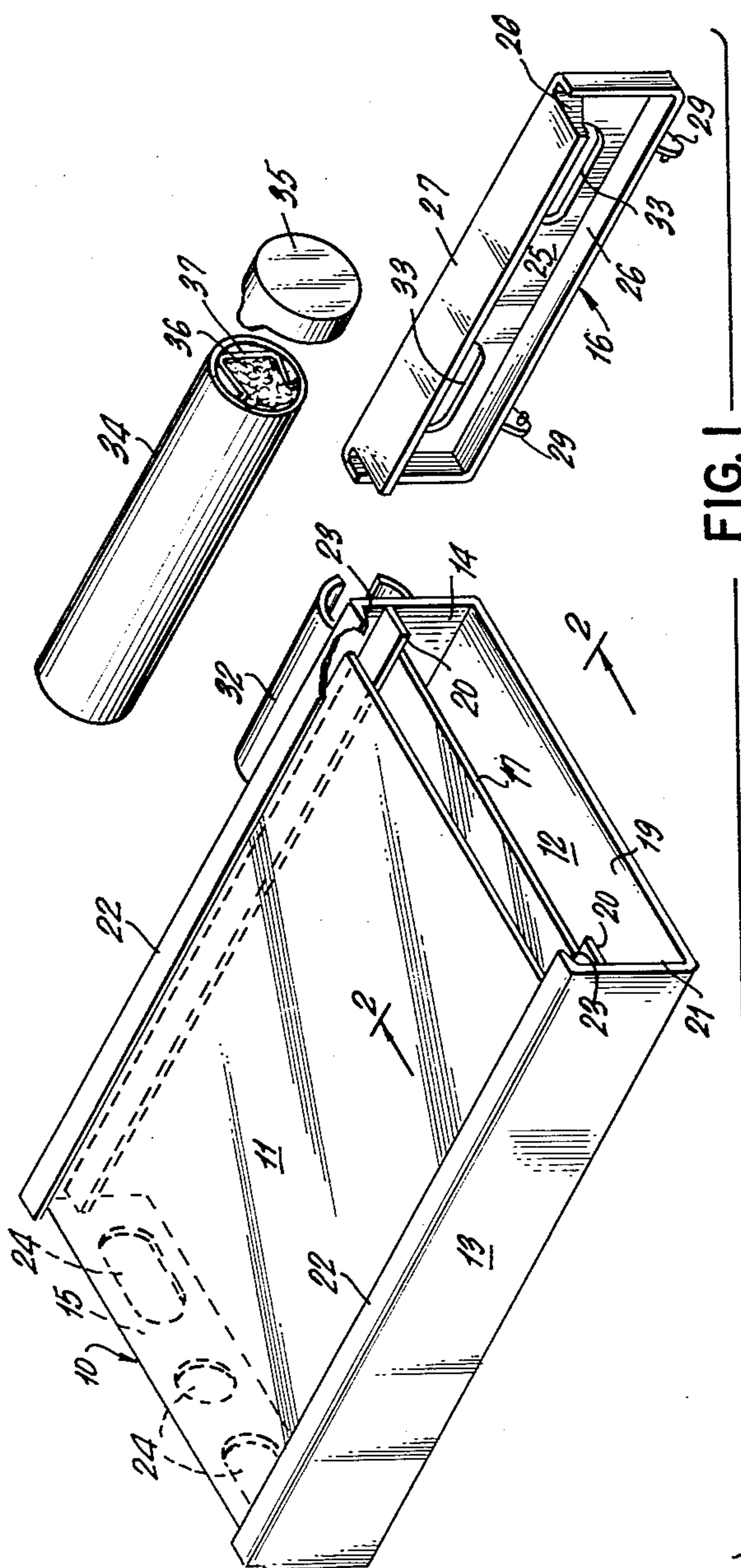


FIG. 1

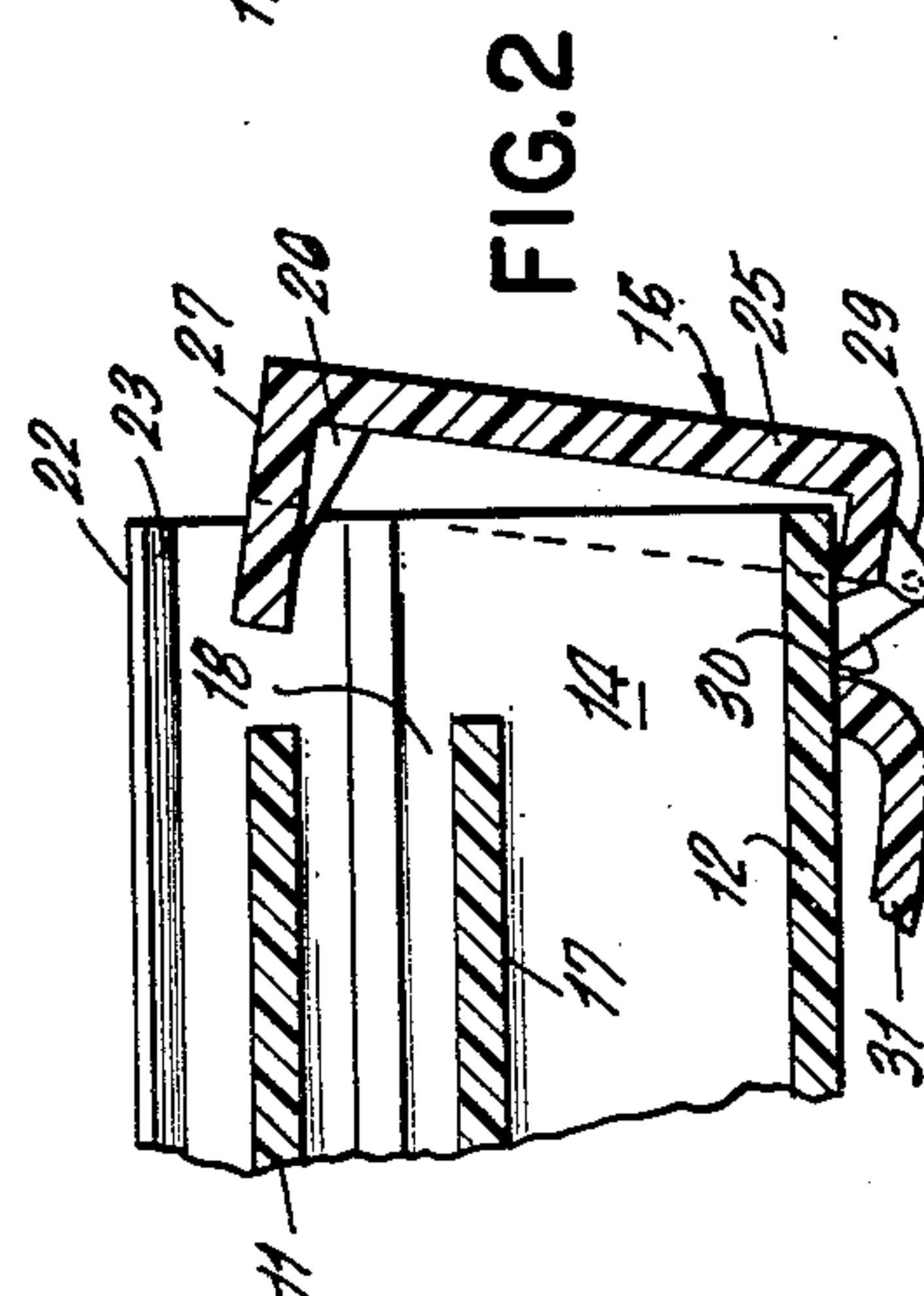


FIG. 2

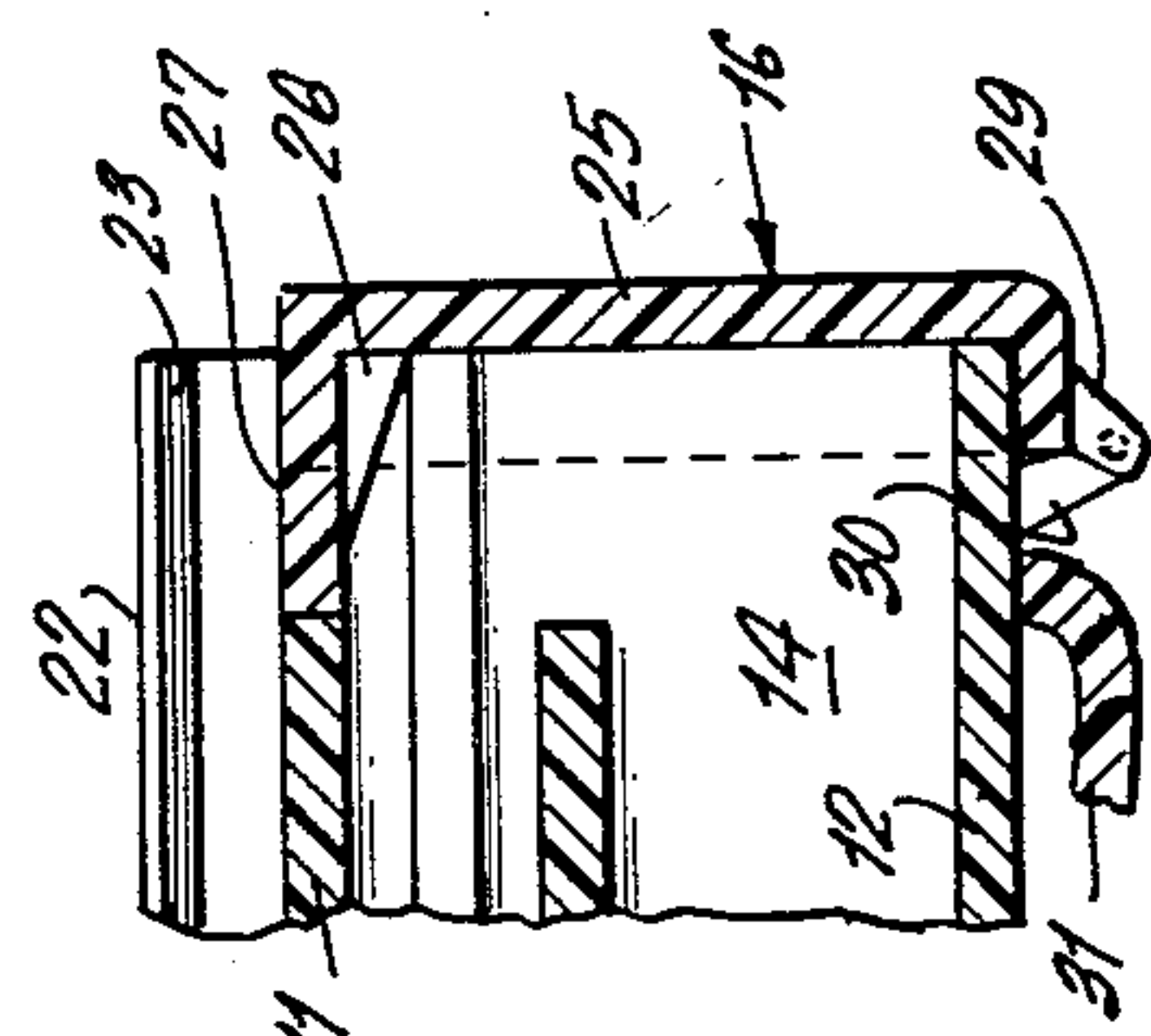


FIG. 3

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2 Sheets-Sheet 2

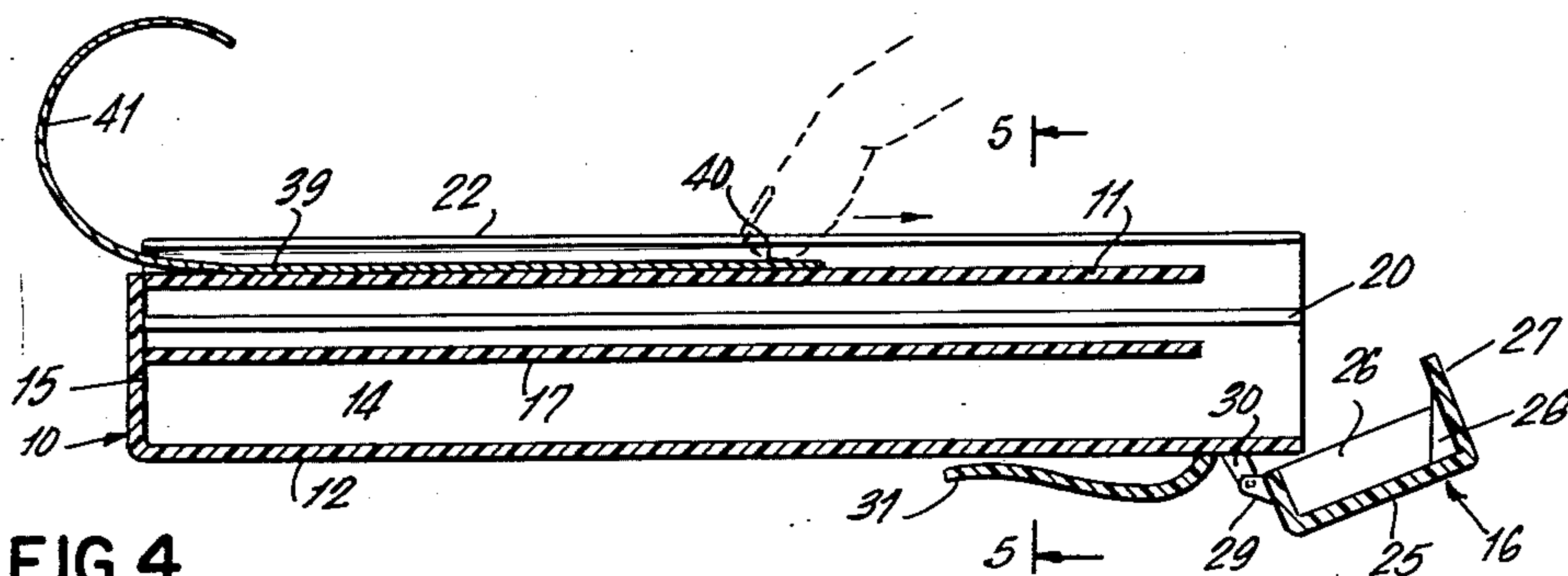


FIG. 4

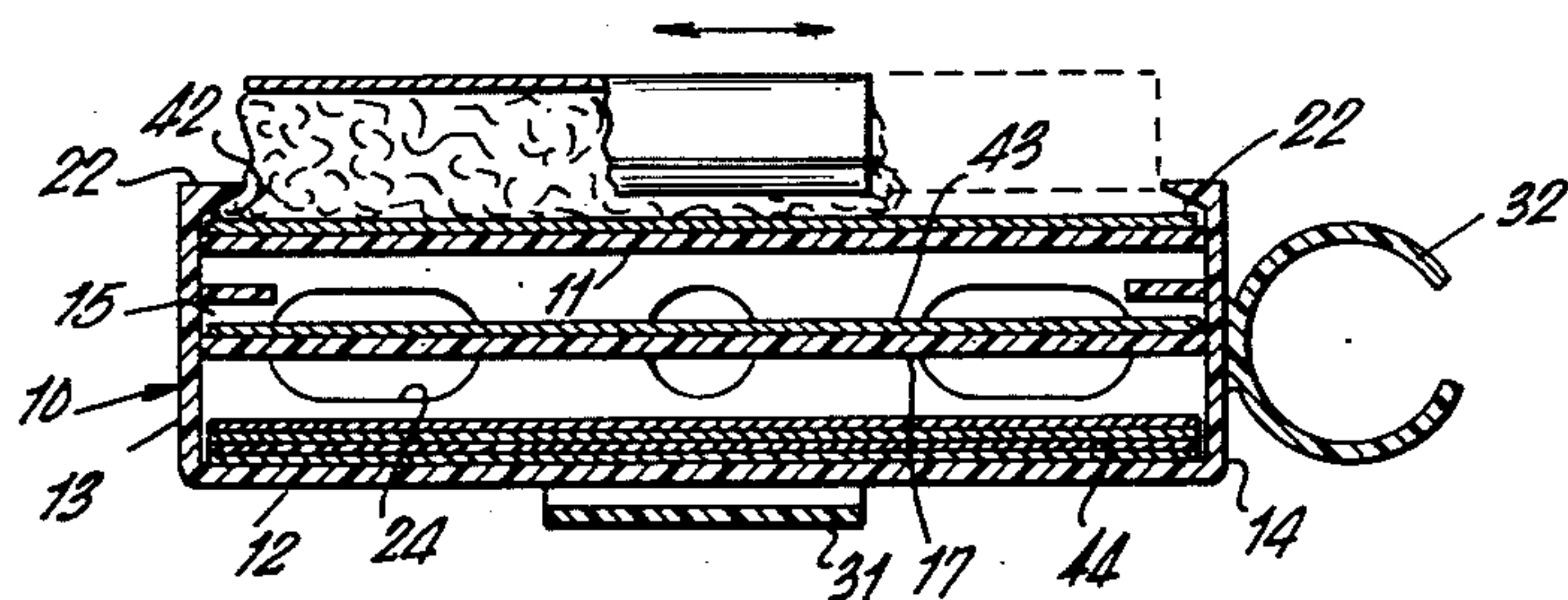


FIG. 5

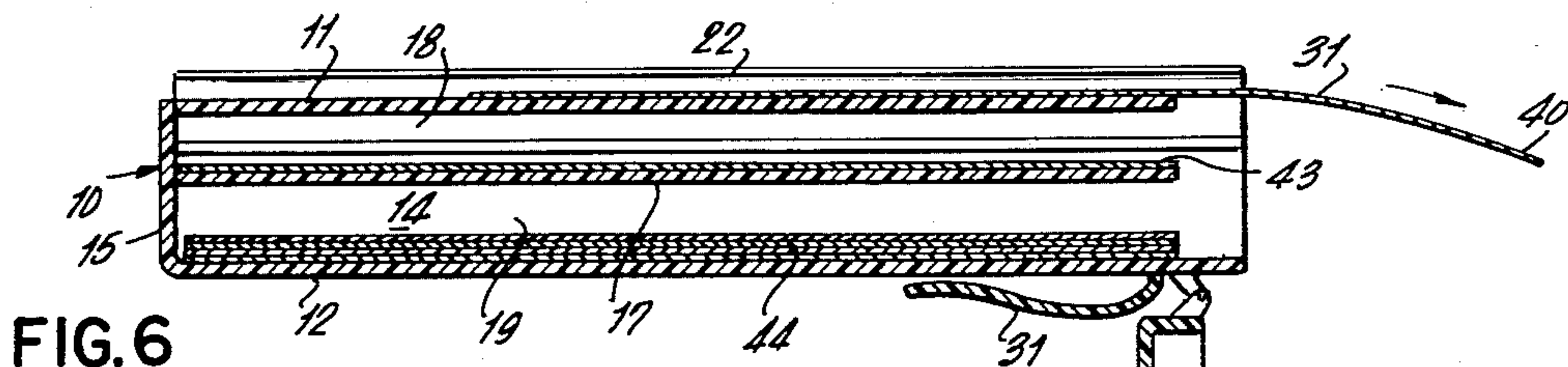


FIG. 6

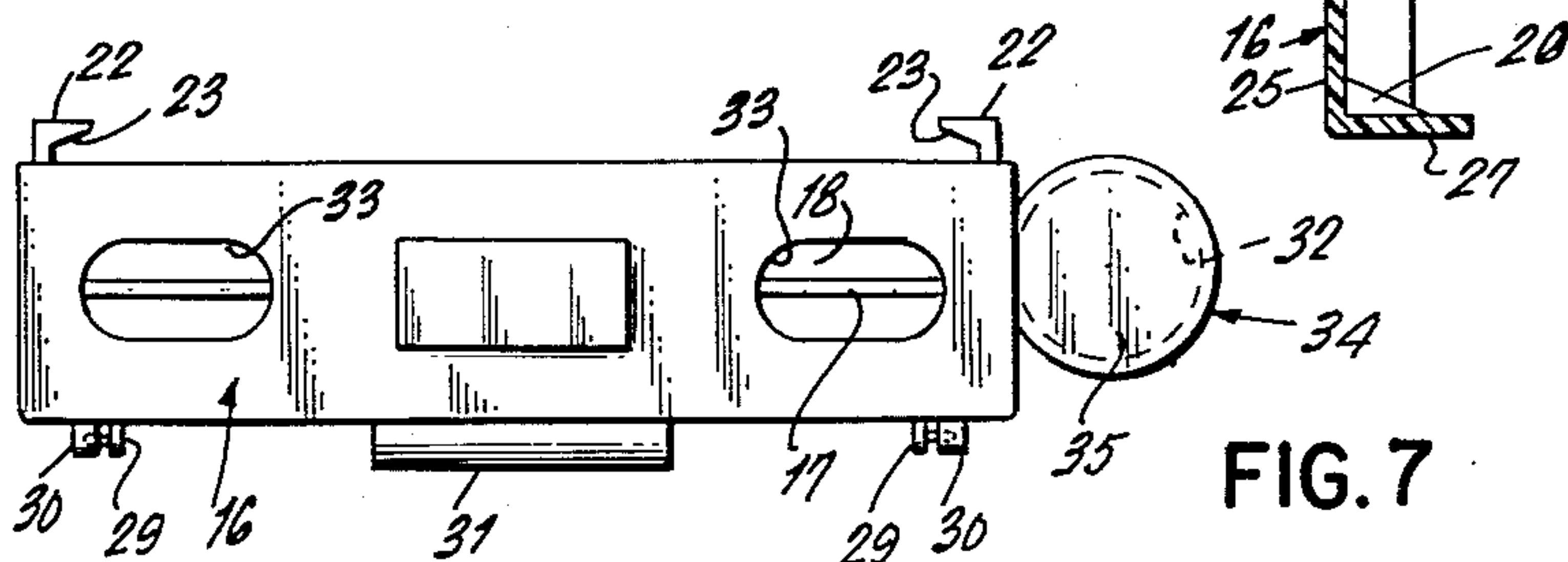


FIG. 7

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2,994,902

POSITIVE PRINT PROCESSING RECEPTACLE

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6 Claims. (Cl. 15-268)

This invention relates to a device in the nature of a processing receptacle for use in the processing, treatment and storage of positive photographic prints directly after their removal from the camera in which they have been exposed.

A positive print is produced directly after the exposure of the film material within a camera by the appropriate development of the emulsion image "in situ." Such prints are typified by prints designated commercially as "Polaroid." Although the development process is completed while the print is still located within the camera, it has nevertheless been found essential to further treat the print after its removal from the camera, as by the application of a liquid coating to the image-bearing surface thereof. It is understood that such additional processing or coating renders the print more permanent and prevents the fading thereof. Such coating also advantageously may provide a protective coating for the print surface in order to minimize the effects of handling and abrasion. The manufacturer of such print material usually provides an applicator in the form of an elongated sponge or similar absorbent material impregnated with the coating liquid, which, for convenience, will be referred herein as a print fixative. The fixative-bearing applicator is packaged in a suitable cylindrical tube or container which is provided with each film package. In applying the fixative coating to the developed positive print, it is deemed essential that the fixative coating material be applied to the very edges of the print and that it cover the print surface completely from edge to edge.

Furthermore, the exposed and developed positive print, as it emerges from the camera, has imparted thereto a very distinct curl which is apparently due to the nature of the emulsion coated print material and its processing characteristics in the camera. In order to provide a print of the desired aesthetic appearance having convenient handling characteristics, it is desirable that this longitudinal curvature of the print be reduced, if not entirely eliminated. A number of methods have been suggested for the achievement of this end but have been found to fall short of the achievement of the desired result.

It is therefore an object of this invention to provide a device incorporating means for receiving and retaining a positive print of the character indicated while being subjected to the fixative processing hereinabove described.

It is a further object of this invention to provide an arrangement of the character indicated wherein the positive print is received and retained in a condition for optimum flattening or uncurling action during fixative processing and immediately thereafter, as well as during drying and storage.

Another object of this invention is to provide a device of the character indicated wherein the positive print may be received and retained for further processing as it is removed from the camera with a minimum amount of handling and without physical contact of the operator's person with any portion of the emulsion or coated positive print surface.

It is also an object of this invention to provide a device of the character indicated wherein means are provided for receiving and retaining a positive print of the type hereinabove described in such position as to assure that fixative coating material may be conveniently applied over the entire surface of the print and particularly over the surface of the marginal edges thereof.

This invention also has for its object the provision of a

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device of the character indicated wherein the positive print may be readily transferred from the coating position to drying position with a minimum amount of manipulation and wherein the print may be stored for drying without danger of abrasion or other undesirable contact with the image surface which might adversely affect the same, such drying and storage arrangement being also particularly adapted for flattening the print and retaining it in that condition during the drying process.

This invention also has for one of its objects the provision of a device for receiving the print during the drying process wherein adequate ventilation is provided while the print surface is protected against dust particles and the like.

It is a still further object of this invention to provide a readily portable device which may be readily clipped to a support, such as an article of clothing, and which is adapted for the simultaneous processing, storage and transportation of several prints, as well as the processing material in a convenient and effective manner.

An additional object of this invention is to provide a device of the character indicated which may be readily and conveniently manufactured on a large scale at a relatively low cost, particularly of injection-molded plastic materials.

Other and further objects, benefits and advantages of this invention will become apparent from the description thereof contained in the annexed specification or will otherwise become obvious. It will be understood that the invention here disclosed may be employed for other purposes to which the structure and arrangement are adapted.

In the accompanying drawings:

FIGURE 1 is a perspective view in exploded form of a device in accordance with the present invention illustrating a fixative applicator and its container in association therewith;

FIGURE 2 is a fragmentary cross-sectional view of FIGURE 1 taken along line 2-2 thereof and illustrating the cover member in mounted position as it appears when partially closed;

FIGURE 3 is a view similar to FIGURE 2, wherein the cover member is illustrated in completely closed position;

FIGURE 4 is a cross-sectional view taken longitudinally of the device illustrating a positive print in the course of insertion in the processing platform of the device;

FIGURE 5 is a cross-sectional view taken transversely of the device illustrating a fixative applicator in the course of treating a print disposed upon the processing platform as well as additional prints in the drying and storage compartments;

FIGURE 6 is a view similar to FIGURE 4 illustrating a print in the process of removal from the processing platform immediately prior to its insertion into the drying compartment, as well as additional prints in the drying and storage compartments; and

FIGURE 7 is an end elevational view of the device as viewed from the hinged cover member showing a fixative container in position.

As shown in FIGURES 1, 4 and 5, the instant device is comprised of a generally rectangular receptacle designated by the numeral 10. The receptacle 10 comprises a top wall 11, the bottom wall 12 and side walls 13 and 14 respectively. The lower end of the receptacle is provided with an end wall 15 having apertures 24 extending therethrough, the purpose of which will more particularly appear hereafter. The interior of receptacle 10 is divided into two compartments by means of an intermediate partition 17. The partition 17, in combination with the top wall 11, defines an initial drying compartment 18. Similarly, partition 17 defines a storage compartment 19 in conjunction with the bottom wall 12. It will be noted

that the top wall 11, as well as partition wall 17, terminate short of the rim 21 of the receptacle mouth. The side walls 13 and 14 are provided with inwardly projecting ledges 20 which extend longitudinally of the receptacle and are positioned intermediate the partition 17 and top wall 11. In this case, it will be noted that the ends of the ledges 20 extend to the rim 21 of the mouth of the receptacle. The side walls 13 and 14 further extend above the planar surface of the top wall 11 and are provided with inwardly extending flanges 22. It will be noted that the flanges 22 are tapered in cross-section, as indicated at 23.

The receptacle 10 is further provided with a hinged lid designated generally by the numeral 16, which comprises an end panel 25 having apertures 33 extending there-through. End panel 25 is surrounded by a flange 26 which is enlarged along the top edge thereof to form a tongue 27. The flange 26 is interrupted at its junctures with the tongue portion 27 and said tongue portion is provided with inwardly extending cam blocks 28. Flange 26 is further provided with depending hinge pintles 29 which are arranged to register with depending ears 30 extending from the bottom wall of the receptacle and provided with apertures for the reception of said pintles in order to form a hinged joint. The arrangement is such, as may be more particularly seen from FIGURES 2 and 3, that the cam surface of cam block 28 bears against the exposed extremities of ledge 20 and assure that tongue 27 of the lid 16 registers accurately with the end of the top wall 11 so that a smooth continuum is formed between these parts in order to aid in the application of the fixative material and not to interfere with the insertion and removal of a photographic print, as will more particularly appear hereafter. The bottom wall of the receptacle is advantageously provided with a clip 31 which permits the entire receptacle to be readily clipped to an article of clothing or the like and to be transported from place to place in a condition ready for instantaneous use. Side wall 14 of the receptacle is additionally provided with a clamp member 32 which is comprised of a split cylinder and is adapted to receive the cylindrical container 34, within which a fixative applicator 36 is disposed.

The container 34 is normally supplied with the package of photographic film material and does not form a part of this invention. The manufacturer of the film material provides the container 34 with a removable cap 35 and said container holds a processing applicator 36 in the form of a liquid impregnated sponge or the like having a stiffening backing member 37. The container is kept closed with the applicator disposed therein until it is desired to make use of said applicator, whereupon the applicator is removed and immediately replaced after use in order to prevent evaporation of the liquid. The clamp 32 is dimensioned so as to frictionally engage the container 34 when said container is disposed therein, the split cylindrical construction providing for a slight resilience which permits the ready insertion and removal of the container into and out of the clamp while securely retaining said container in position as desired.

The entire device is advantageously formed of injection-molded plastic parts and the top, bottom and intermediate partition may be advantageously formed of a transparent material, if desired, in order to permit the positive photographic prints located therein to be viewed during the course of processing or storage.

FIGURES 4, 5 and 6 more particularly illustrate the manner in which the instant device is utilized for the purposes indicated. FIGURE 4 illustrates a positive photographic print 39 of the "Polaroid" type in the process of being mounted upon the device in preparation for the application of the fixative material. A positive photographic print of the type indicated, is generally of rectangular configuration and is provided at one of its ends with a triangular tab which forms no part of the image-carrying surface and by means of which it may be han-

dled. This portion is indicated by the numeral 40. Furthermore, as heretofore indicated, the positive photographic print, as it is removed from the camera, has imparted thereto a very distinct curl, a portion of which is indicated at 41. Upon removal from the camera, the operator grasps the print by means of the end tab 40 and, disposing said end tab upon the portion of the top wall, draws the print toward the hinged end thereof. In this process, the side edges of the print are disposed underneath the flanges 22 which act as guides for the print while simultaneously causing the print to be flattened and uncurled as it is drawn over the surface of the top wall 11. It will further be noted that in view of the tapered flanges and the consequent inclination of the undersurface of said flanges, minimal contact is made between the edge surfaces of the print and the undersurface of the flange. However, this contact is sufficient to support the print in flattened condition. It will further be noted that the tongue 27 of the hinged lid forms a smooth continuum of the top wall 11 and consequently, a surface area corresponding to the full longitudinal dimension of the receptacle is available for supporting the print during the processing thereof. With the print positioned on the top wall which, in this respect, comprises a processing platform, the fixative applicator 36 is removed from the container 34 and may be wiped along the exposed surface of the positive print. In this connection, it will again be noted that by reason of the tapered cross-section of the flanges 22 and the inclined undersurface presented by the flanges, the space between the print and said undersurface of the flange increases inwardly of the receptacle. As a consequence of this arrangement, the applicator sponge may be pressed against the edge of the flange as it is drawn along the print, which action will cause a portion of the sponge to protrude into the space between the flange and the print to thereby apply the fluid treating material along the very edges of the positive print, as indicated by the numeral 42 in FIGURE 5. The print is thus treated in the manner suggested by the manufacturer as being most effective while it is nevertheless supported in flattened or uncurled condition. The moistening of the print surface in this manner aids in the removal of the curl.

After the entire exposed surface of the photographic print has been treated by the applicator, the applicator may be restored to its container and the print is withdrawn from its processing platform or top wall 11 in the direction of the hinged cover which is flipped open as indicated in FIGURES 5 and 6. It has heretofore been pointed out that the end of processing platform or top wall 11 terminates short of the rim 21 at the mouth of the receptacle. Flanges 22, however, do extend to the rim 21 of the receptacle mouth. As a consequence of this arrangement, as the end of the print approaches the receptacle mouth, the end thereof will clear the end of top wall 11 so that the end of the print remains captured within the receptacle and is kept in flattened condition and prevented from re-curling by means of the overhanging portion of flanges 22. At this point, the end of the print is manipulated so that it rests between the undersurface of the top wall 11 and ledges 20, whereupon it is re-inserted under the top wall 11 into the drying compartment of the receptacle. If desired, the treated print may be inserted into the lower portion of the drying compartment which is defined by the ledges 20 and the separating partitions 17, as indicated for example by a print 43 in FIGURES 5 and 6. It will be noted that while the print is retained in either subdivision of the drying compartment, the edges thereof are captured so that it is retained in flattened condition while it dries so that the ultimate print has this desired characteristic. The prints within the drying compartment are also retained in separate condition. The processing and insertion of the print into the drying compartment is achieved completely without any contact between the operator's

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person and the image surface of the print, so that it is at all times retained in its initial condition. The drying compartment further protects the print against any contact or dust until it has been sufficiently dried for further handling without danger to the destruction of the image-carrying surface. When the processing platform or top wall 11 is formed of a transparent material, the print may be examined during the course of the drying action. The apertures 24 and 33 provided in the end wall and lid of the receptacle permit the drying compartment to be constantly ventilated to thereby accelerate the drying action. The extension of the ledges 20 to the very rim of the mouth of the receptacle permit the insertion of a print into the lower portion or subdivision of the drying compartment in the manner heretofore indicated with respect to the upper portion thereof and serve to guide the print in flattened condition into the lower portion of said compartment. The intermediate partition 17 also defines a storage compartment in combination with bottom wall 19. This storage compartment is utilized after a print has been sufficiently dried in the drying compartment to permit it to be transferred to this portion of the device. In view of the fact that the prints are dry at this point, they may be placed in contact with one another without danger to the image or emulsion surfaces. A stack of prints inserted in the storage compartment is indicated by the numeral 44 in FIGURES 5 and 6.

From the foregoing, it will be apparent that the instant device is adapted to receive a series of photographic prints as they are removed from the camera, processed and stored. The arrangement is such that a print may be processed while others are being dried and still others are retained in stored condition. The operator need merely transfer the prints in succession from the processing platform to the drying compartment and thence into the storage compartment, using the single device. Thus, a print may be treated with the processing fluid while the preceding prints are in the course of being dried and dry prints are stored. The operator is thus provided with a unitary device which permits him to perform all of the steps immediately after the removal of successive prints from the camera without danger to marring or otherwise destroying the print and with a minimum amount of manipulation. The device is simple and compact and provides for ready access to the processing applicator and the storage thereof. Clip 31 provides a convenient means for supporting the device in the pocket or upon the belt or similar location on the person of the photographer while prints are being dried and stored and leaves the operator's hands free for the manipulation of the photographic equipment. The device, however, is available for instantaneous use as soon as print is removed from the camera.

While I have here shown and described a preferred embodiment of my invention, it will be apparent however that this invention is not limited to this embodiment and that many changes, additions and modifications

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can be made in connection therewith without departing from the spirit and scope of the invention as herein disclosed and hereinafter claimed. Having described my invention what I claim as new and desire to secure by

Letters Patent is:

1. A processing device for positive photographic prints comprising a generally rectangular open mouth receptacle including a top wall, a bottom wall, side walls and an end wall, a hinged lid for the mouth portion of said receptacle, some of the walls of said receptacle being provided with ventilating apertures, a partition disposed across the interior of said receptacle whereby said receptacle is divided into compartments for receiving prints in different stages of processing, a pair of longitudinally extending inwardly directed flanges disposed along the opposing side edges of said receptacle, the inwardly directed portions of said flanges being spaced from the said receptacle wall to define a guideway for supporting a print externally of said receptacle.

2. A processing device for positive photographic prints comprising a generally rectangular open mouth receptacle including a top wall, a bottom wall, side walls and an end wall, a hinged lid for the mouth portion of said receptacle, some of the walls of said receptacle being provided with ventilating apertures, a partition disposed across the interior of said receptacle whereby said receptacle is divided into compartments for receiving prints in different stages of processing, said top wall and partition terminating short of the mouth of said container, inwardly directed longitudinally extending ledges carried by said side walls are disposed intermediate said partition and the top wall of said receptacle, said ledges having end portions extending to the rim of the mouth of said container, said cover being provided with cam blocks disposed to engage with the end surfaces of said ledges as said cover is swung to closed position.

3. The device according to claim 2, wherein said cover is provided with a tongue portion which registers with the top wall of said container and forms a smooth continuum thereof when said cover is in closed position.

4. The device according to claim 2, wherein the apertures provided are disposed in the end wall and cover of said receptacle.

5. The device according to claim 2, including a clip member secured to said receptacle for engagement with a support.

6. The device according to claim 2, including a clamp mounted on said receptacle for supporting a processing medium.

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