Sept. 14, 1965 O. W. STONE 3,206,013

ARTICLE-SUPPORTING AND DISPLAYING DEVICES

Filed July 2, 1964 2 Sheets-Sheet 1

Fig. 1.

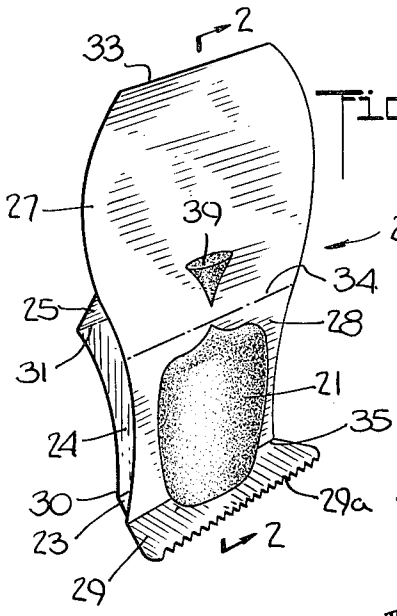


Fig. 6.

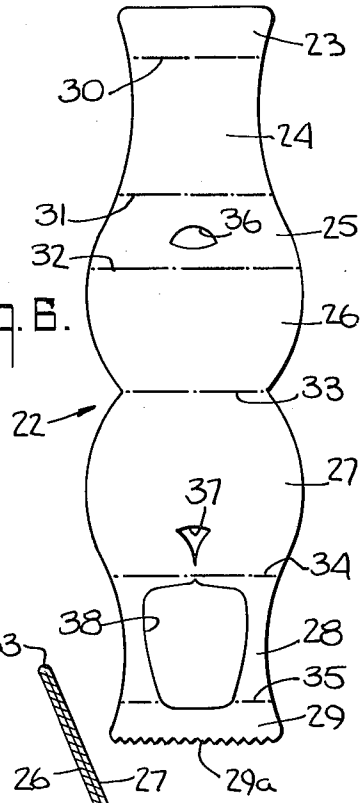


Fig. 2.

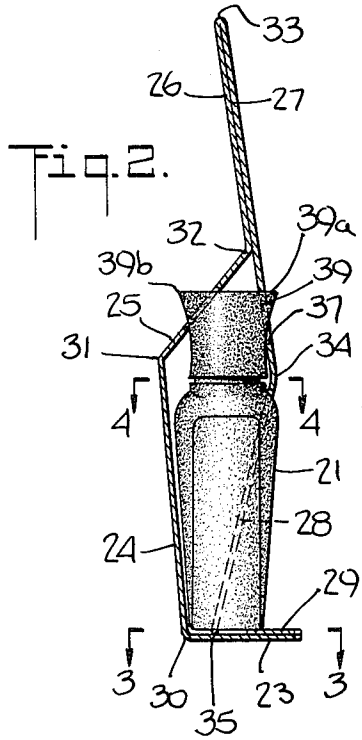


Fig. 3

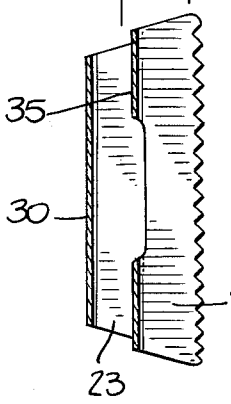


Fig. 4.

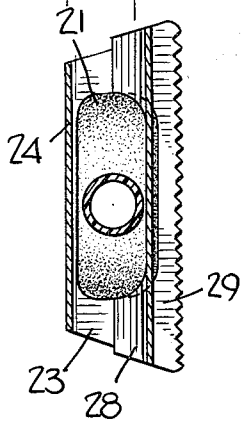
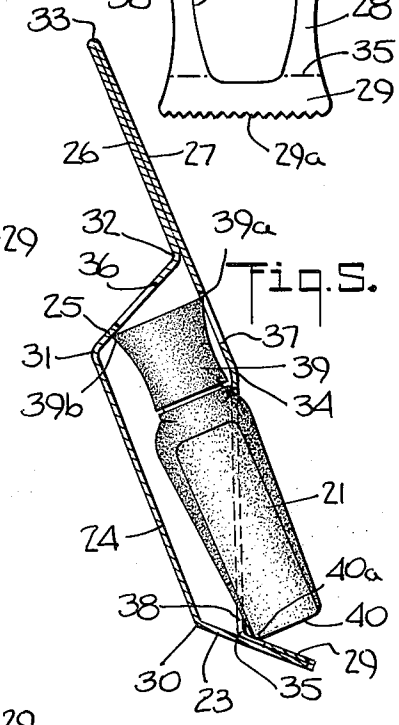


Fig. 5.



INVENTOR.
ORISON W. STONE
BY F. J. Pisarra
ATTORNEY

Sept. 14, 1965 O. W. STONE 3,206,013

ARTICLE-SUPPORTING AND DISPLAYING DEVICES

Filed July 2, 1964 2 Sheets-Sheet 2

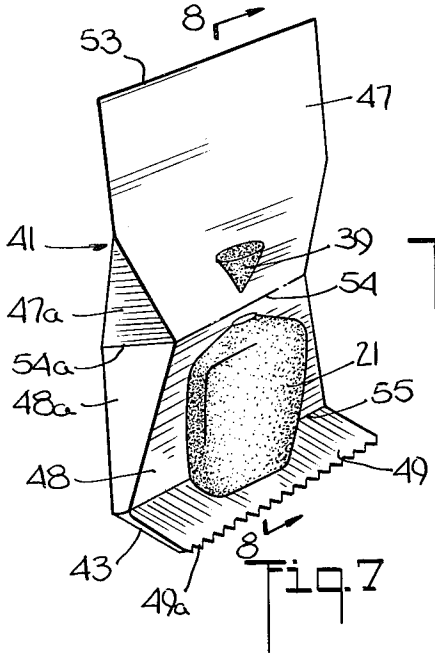


Fig. 7

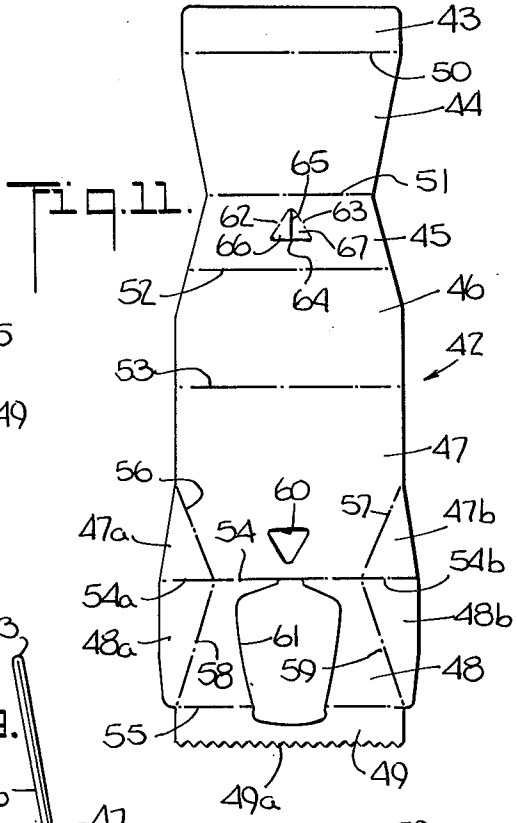


Fig. 11.

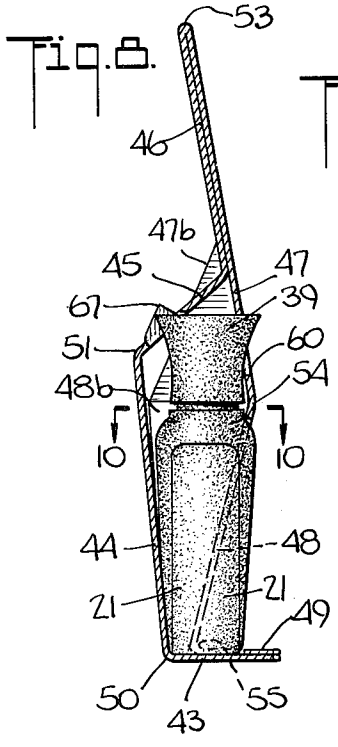


Fig. 8.

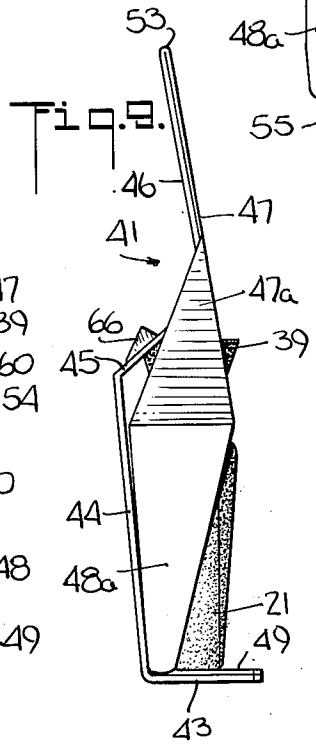


Fig. 9.

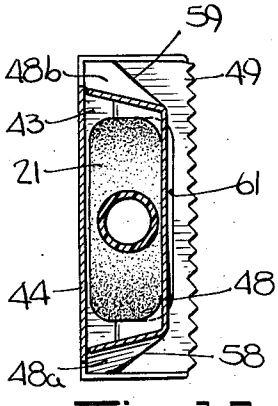


Fig. 10.

INVENTOR.
ORISON W. STONE
BY
F. J. Pisarra
ATTORNEY

United States Patent Office 3,206,013 Patented Sept. 14, 1965

3,206,013 ARTICLE-SUPPORTING AND DISPLAYING DEVICES

Orison W. Stone, Valley Cottage, N.Y., assignor to Developak, Inc., New York, N.Y., a corporation of New York

Filed July 2, 1964, Ser. No. 379,836
6 Claims. (Cl. 206—45.14)

This invention relates to article-supporting devices, and in particular to such devices adapted for use in displaying the articles to prospective purchasers thereof.

In merchandising many types of consumer products, it is the practice to set up one or more of the respective articles, either alone or in conjunction with other articles of the same or different categories, in suitable upright holders therefor on counters and shelves as well as in store windows for display purposes, with each such holder or supporting device, if desired, also bearing additional advertising information. In general, such an article-supporting and displaying device is termed a "boot."

It is an object of the present invention to provide novel article-supporting and displaying boots.

Another object of the present invention is to provide a novel base or pedestal flange construction for such article-supporting and displaying boots.

A more specific object of the present invention is the provision of such article-supporting and displaying devices or boots wherein the main body and the pedestal or base flange structure of each such device are interconnected by a differential hinge connection.

Still another object of the present invention is the provision of article-supporting and displaying boots as aforesaid which are made of one-piece blanks of paperboard or like sheet material suitably pre-scored, cut and dimensioned.

Yet another object of the present invention is the provision of article-supporting and displaying boots as aforesaid which can be produced more economically than heretofore available devices of this category.

The foregoing and other objects, characteristics and advantages of the present invention will be more fully understood from the following detailed description thereof when read in conjunction with the accompanying drawings, in which:

FIG. 1 is a front elevational view, in perspective, of an article-supporting and displaying boot constructed in accordance with one aspect of the present invention and having an article to be displayed mounted therein;

FIG. 2 is a sectional view, on a somewhat larger scale, taken along the line 2—2 in FIG. 1;

FIGS. 3 and 4 are sectional views taken, respectively, along the lines 3—3 and 4—4 in FIG. 2;

FIG. 5 is a sectional view similar to FIG. 2 but illustrates the device during the process of insertion thereinto of the article to be displayed;

FIG. 6 is a plan view, on a reduced scale, of an unfolded one-piece blank of sheet material employed to produce the boot shown in FIGS. 1 to 5;

FIG. 7 is a front elevational view, in perspective, of a somewhat modified form of the boot in accordance with another aspect of the present invention;

FIG. 8 is a sectional view, on an enlarged scale, taken along the line 8—8 in FIG. 7;

FIG. 9 is a side elevational view of the boot shown in FIG. 7;

FIG. 10 is a sectional view taken along the line 10—10 in FIG. 8; and

FIG. 11 is a plan view of an unfolded one-piece blank of sheet material employed to produce the boot shown in FIGS. 7 to 10.

Referring now to the drawings in greater detail, it will be seen that a boot 20 (FIG. 1) according to one aspect of the present invention, designed for supporting and displaying an article 21, such as a flexible type of dispensing container commonly known as a squeeze bottle, is made from a blank 22 (FIG. 6) of paperboard or other suitable sheet material. The blank 22 is divided into a plurality of contiguous panels 23 to 29 by a plurality of parallel fold lines or scorings 30 to 35. The panels 25, 27 and 28 are provided, respectively, with interior specially shaped cutouts or openings 36, 37 and 38, of which the opening 38 extends for a short distance beyond the fold line 35 into the panel 29. The ultimate utilization of these openings will become clear as the description proceeds. The panel 29 is shown as having a scalloped or serrated outer edge 29*a*, but it will be understood that this is a matter of design only and that the said edge could be straight or otherwise contoured depending on the esthetic effect sought to be attained.

To form the boot 20 (see especially FIGS. 1 and 2), the blank 22 is first folded along the fold line 33 so as to dispose the panel 27 in overlying relationship to the panel 26, and the panel 29 in overlying relationship to the panel 23. The panel 26 is then adhesively bonded or otherwise fixedly secured over at least a portion of its expanse adjacent the fold line 32 to the rear surface of the panel 27, while the panel 29 is adhesively bonded or otherwise fixedly secured over its entire expanse up to the fold line 35 to the panel 23 in such a manner (see also FIGS. 3 and 4) as to dispose the fold line 30 between the panels 23 and 24 parallel to and spaced a predetermined distance rearwardly from the fold line 35 between the panels 28 and 29.

In the finished boot 20, therefore, the panels 27 and 28 define the front wall of the boot, while the panels 24 to 26 define the rear wall, and these walls are separable from one another over at least a portion of their respective lengths so as to define therebetween a pocket or space adapted to receive at least a portion of the article 21 to be supported and displayed. Concurrently, the panels 23 and 29 constitute a unitary base flange or structure for the boot, extending frontwardly relative to the walls 24–26 and 27–28, with the panels 23 and 29 being individually hinged to the respective contiguous lower wall panels 24 and 28. In an average size boot 20, the distance between the spaced and parallel hinge connections 30 and 35 will generally be on the order of about ⅛ to 3/16 inch. Irrespective of the magnitude of this distance, however, the arrangement is such that when the boot is empty and the wall portions 24–25 and 28–27 are not fully separated from one another, the flange 23–29 is constrained to lie at an acute angle of about 60 degrees or less to the general plane of the said wall portions of the boot. It should further be noted that the combined length of the panels 24 and 25 is substantially equal to the combined length of the panel 28 and the unbonded lower portion of the panel 27, and that despite the differential hinging of the panels 23 and 29 to the panels 24 and 28 the said flange can be laid flat against the panel 28, whereby the boot can be completely flattened, when empty, to facilitate shipment from the manufacturer to the ultimate user, e.g. a retail or wholesale merchant of the articles 21. As soon as the flattening constraint is removed, of course, the flange 23–29 automatically reassumes its aforesaid angular orientation relative to the wall panels 24 and 28.

As will be clearly understood from FIG. 5, when the article 21, e.g., a plastic squeeze bottle having its top end constituted by a rigid screw cap 39 and its bottom end by a planar surface or peripheral ridge 40, is to be mounted in the boot 20, the base flange 23–29 is first shifted downwardly relative to and away from the body

or upper portion of the boot until the flange is oriented at least at a substantial obtuse angle to both of the walls 28 and 24. The top end of the article is now inserted into the so fully opened space or pocket between the front and rear walls of the boot and pushed upwardly therethrough along the panels 24 and 25 (FIG. 5).

When both the front and rear edges 39*a* and 39*b* of the cap 39 are received in the respective openings 37 and 36, the body of the article 21 is pressed rearwardly toward the panel 24. As the leading rearwardmost edge 40*a* of the bottom 40 of the article passes through the bottom region of the opening 38 and engages the unbonded upper surface of the panel 23 rearwardly of the hinge connection or fold line 35, a stress is exerted on the base flange 23–29, due to the engagement of the upper surface of the cap 39 against the upper boundaries of the openings 36 and 37, the tendency of which, due to the differential hinging of the flange to the walls of the boot, is to rock the flange counter-clockwise (as seen in FIG. 5) about the hinge connection 35 and thereby to pull the flange with snap-like motion flush up against the bottom of the article.

Once this condition has been reached, with the rear bottom edge 40*a* of the article disposed substantially at and along the rear hinge 30 (FIGS. 2 and 4) and with the inner edges of the panel 28 which define the top and side boundaries of the opening 38 closely hugging the corresponding surface portions of the article 21 (FIG. 1), the assembled boot and article are combined into a thoroughly stable structure which can be positioned on a counter, shelf or other supporting surface in the upright position illustrated in FIGS. 1 and 2, to enable the article to be fully displayed to prospective purchasers thereof. It will be noted that when the boot and article are so positioned, the front panel 27 is tilted slightly rearwardly, making for optimum visibility of its outer surface and thus of any advertising information or attractive designs which may be provided thereon.

A somewhat modified boot 41 designed for supporting and displaying the same article 21 is shown in FIGS. 7 to 10. The boot 41 is made from a one-piece blank 42 (FIG. 11) of paperboard or like sheet material and comprises a plurality of contiguous panels 43 to 49 separated from one another by a plurality of parallel fold lines or scorings 50 to 55. The panel 47 is provided at its opposite sides with a pair of fold lines 56 and 57 which are angled inwardly from approximately the mid-points of the panel side edges and terminate at spaced points along the fold line 54. Similarly, the panel 48 is provided with a pair of fold lines 58 and 59 which are angled outwardly from the points at which the fold lines 56 and 57 intersect the fold line 54 and terminate at the opposite ends of the fold line 55. The portions of the panels 47 and 48 located at the remote sides of the angular fold lines 56–58 and 57–59 are divided into respective sections 47*a*–48*a* and 47*b*–48*b* by fold lines 54*a* and 54*b* constituting a pair of linear extensions of the fold line 54.

The panels 47 and 48 are further provided with respective cutouts or openings 60 and 61, with the opening 61 extending somewhat into the end panel 49. The panel 45 is provided with two fold lines or scorings 62 and 63 and a cut 64 arranged in the form of an equilateral or isosceles triangle, and the part of the panel 45 located within the said triangle is cut at 65 perpendicularly to the cut 64, thereby providing a pair of small right triangular tabs 66 and 67 which are hinged to the panel along their respective hypotenuses. As in the case of the boot 20, the panel 49 may be serrated, scalloped, straight or otherwise contoured along its free edge 49*a*.

The procedure followed to form the boot 41 is in essence identical with that described hereinbefore in connection with the boot 20. Thus, the blank 42 is folded about the fold line 53, the panel 46 is adhesively bonded or otherwise fixedly secured over at least a portion of its expanse adjacent the fold line 52 to the rear surface of the panel 47, and the base flange panel 49 is bonded

or otherwise fixedly secured over its entire expanse up to the fold line 55 to the underlying portion of the base flange panel 43 so as to dispose the hinge connection 55 between the panel 49 and the front wall panel 48 parallel to and frontwardly of the hinge connection 50 between the panel 43 and the rear wall panel 44. The arrangement is such that the boot 41, when empty, can be flattened and the base flange 43–49 laid flat against the front wall panel 48, and the base flange in the absence of a flattening constraint will normally lie at an acute angle of about 60 degrees or less relative to the general plane of the wall portions of the boot.

To mount the article 21 in the boot 41, the base flange 43-49 is first displaced to lie at an obtuse angle to the wall panels 44 and 48, thereby to enlarge the space between said wall panels and permit insertion of the top end 39 of the article. The latter is then pushed up and in, as previously described in connection with the loading of the boot 20, until the base flange snaps up flush against the bottom of the article. The combined boot and article shown in FIGS. 7 and 8 then constitute a stable structure which can be placed on a suitable supporting surface for display purposes and differs from the boot and article combination shown in FIGS. 1 and 2 principally in that the opposite sides of the boot 41 are effectively closed when the panel sections 47*a*–48*a* and 47*b*–48*b* are folded rearwardly as illustrated. These panel sections are provided solely for esthetic purposes and otherwise do not affect either the construction of the boot or the functioning thereof. The small tabs 66 and 67 exert a yielding force against the rear edge of the article cap 39 and aid in preventing the article from shifting its position within the boot 41. It will be understood, of course that similar tabs may be provided in the panel 25 of the boot 20 in lieu of the opening 36, and that such an opening may be provided in the panel 45 of the boot 41 in lieu of the tabs.

With respect to the base flanges 23–29 and 43–49 of the boots 20 and 41, it will be noted that in the drawings the panels are illustrated as being so dimensioned that the lower base panel (23 or 43) terminates at a front edge coinciding substantially with the front edge of the upper base panel (29 or 49). It should be understood, however, that this is not an essential relationship and that the overall lengths of these base flange panels (as measured lengthwise of the blanks 22 and 42) may be selected at will. It is generally preferred that at least the lower base panel (23 or 43) be approximately long enough to underlie the entire bottom 40 of the article 21 and to project somewhat frontwardly thereof. An important requirement, however, is that the perpendicular distance from the front hinge (35 or 55) to any transverse line of bonding or joining of the associated base panels to one another be less than the distance from the rear hinge (30 or 50) to that same line. Within the purview of this requirement, therefore, the base panels may be secured to one another by stapling or otherwise rather than by gluing, and the upper base panel (29 or 49) need not be secured to the lower base panel (23 or 43) over its entire surface area up to the front hinge connection (35 or 55).

It will further be understood that each of the boots 20 and 41 may be constructed to hold, in addition to the principal article 21 shown, either an additional article (or set of articles) of the same class or an additional article (or set of articles) of a different category the sale of which is to be tied in with the sale of the principal article.

I claim:

1. In a device for supporting and displaying an article: an upper structure and a base structure, said upper structure comprising front and rear walls separable from one another over at least a portion of their respective lengths to define therebetween a pocket adapted to receive at least a portion of an article to be displayed, one of said walls being provided with a through opening to

enable insertion of said portion of said article into said pocket, and said base structure comprising a first panel hingedly connected to and extending frontwardly from the lower portion of said front wall, and a second panel hingedly connected to and extending frontwardly from the lower portion of said rear wall, said first panel overlying a part of said second panel and being secured to the latter in such a manner that the hinge connection between said first panel and said front wall is spaced frontwardly from and parallel to the hinge connection between said second panel and said rear wall.

2. A device according to claim 1 wherein the device is formed from a one-piece blank, opposite end portions of the blank constituting said first and second panels.

3. In a device for supporting and displaying an article: an upper structure and a base structure, said upper structure comprising front and rear walls separable from one another over at least a portion of their respective lengths to define therebetween a pocket adapted to receive at least a portion of an article to be displayed, said front wall being provided with a through opening to enable insertion of said portion of said article into said pocket, and being further provided with lateral flap members adapted to overlie the gaps between the front and rear wall side edges when said walls are separated, and said base structure comprising a first panel hingedly connected to and extending frontwardly from the lower portion of said front wall, and a second panel hingedly connected to and extending frontwardly from the lower portion of said rear wall, said first panel overlying a part of said second panel and being secured to the latter in such a manner that the hinge connection between said first panel and said front wall is spaced frontwardly from and parallel to the hinge connection between said second panel and said rear wall.

4. In a device for supporting and displaying an article: wall means adapted to enclose at least a portion of an article to be displayed when said article is disposed essentially frontwardly of at least a part of said wall means,

and a base flange structure extending frontwardly from said wall means, said base flange structure comprising a pair of panels arranged in face to face relationship, said panels being individually hingedly connected to said wall means in such a manner that the hinge connections are spaced and parallel, and said pair of panels being secured to one another at a location disposed frontwardly of said hinge connections, said base flange structure being oriented at an acute angle not greater than 60 degrees to the general plane of said wall means when no article is enclosed thereby.

5. In a device for supporting and displaying an article: front and rear wall means adapted to enclose therebetween at least a portion of an article to be displayed, said front wall means being provided with an opening for viewing of said article therethrough and a pedestal flange structure extending frontwardly relative to said wall means, said pedestal flange structure comprising a pair of panels hingedly connected to the lowermost ends of said wall means, respectively, and extending frontwardly therefrom, said panels being secured to one another to dispose the hinge connection between the upper one of said panels and said front wall means a predetermined distance frontwardly of and parallel to the hinge connection between the lower one of said panels and said rear wall means, whereby said pedestal flange in the absence of an article is automatically oriented at an acute angle of about 60 degrees or less to the general plane of said wall means.

6. In a device according to claim 5: said front wall means further being provided with side flaps to cover the open space between the side edges of said front and rear wall means upon enclosure of said article therebetween.

References Cited by the Examiner

UNITED STATES PATENTS

3,050,183 8/62 Mueller ---------- 206—45

THERON E. CONDON, *Primary Examiner.*