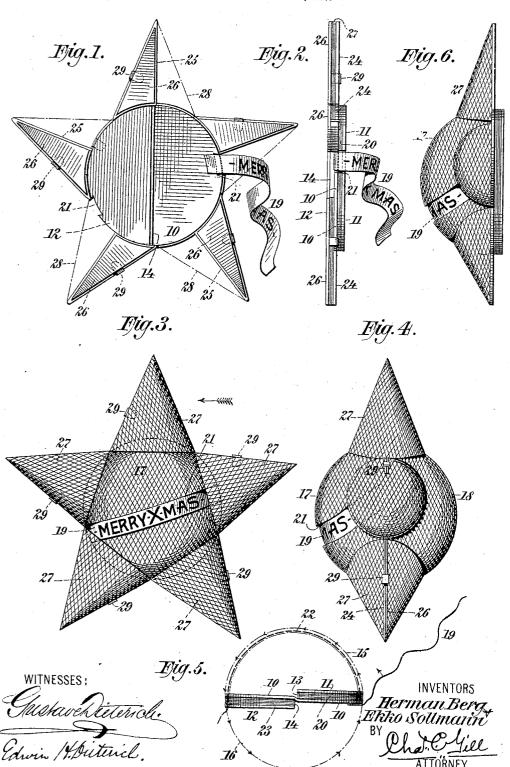
H. BERG & E. SOLLMANN.
CELLULAR PAPER NOVELTY.
APPLICATION FILED APR. 4, 1907.



## UNITED STATES PATENT OFFICE.

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## CELLULAR PAPER NOVELTY.

No. 859,280.

Specification of Letters Patent.

Patented July 9, 1907.

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To all whom it may concern:

Be it known that we, Herman Berg, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, 5 and Ekko Sollmann, a citizen of the United States, and a resident of Hoboken, Hudson county, New Jersey, have invented certain new and useful Improvements in Cellular Paper Novelties, of which the following is a specification.

The invention relates to improvements in cellular paper novelties, and consists in the novel features and structure hereinafter described, and particularly pointed out in the claims.

The invention pertains more particularly to the class of paper novelties comprising two hinged pasteboard sections having secured to their adjoining faces a bank of pieces or strips of tissue paper united to one another in series at alternate points and adapted upon the unfolding or turning apart of the pasteboard sections to open out and expand into an ornamental paper body of cellular structure, the cells being formed between the strips of tissue paper and ordinarily of diamond shape.

One object of our invention is to produce a novelty 25 of the character referred to in which, when the pasteboard backs are opened outwardly, the spherical or convex body then created will bear a strip of paper or the like carrying a motto or other imprint, this strip being snugly embedded within the outer surface of 30 said body.

A further object of our invention is to produce an article of the class referred to comprising a convex or globular body and an independently operable section applied thereto and which when unfolded will match said globular body and with it create a structure of pleasing appearance.

A further object of the invention is to provide a structure of the class referred to which, when manipulated, will form a star of novel formation.

40 The invention is presented herein as embodied in a structure for creating a star comprising a globular middle or body portion and cone-shaped sections fitting the same and constituting the points of the star, and said invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which:

Figure 1 is a front view of a star structure embodying the invention, the features thereof being shown 50 in their folded position, as would be their condition during shipment or when not in use, and the dotted lines indicating the outline of the points of the star after the unfolding has taken place of the parts con-

stituting said points; Fig. 2 is an edge view of same, the parts being represented in their folded condition; 55 Fig. 3 is a front view of same with the parts shown in their unfolded condition to create the star and display across its middle portion the paper or other strip bearing the motto or the like; Fig. 4 is an edge view of same; Fig. 5 is a diagrammatic view taken from the upper end of the body of the star and indicating the method of unfolding the parts thereof to form the globular body, and Fig. 6 illustrates the star as having been open to one-half of its extent so as to create a star having a flat back and a convex front.

We will first describe the globular portion of the article and then the accessories connected therewith. In the formation of the globular or body portion of the star, we provide a substantially circular disk 10 of pasteboard or the like and at opposite sides thereof 70hinge thereto at their inner edges, half-disks 11, 12 of pasteboard or the like (Fig. 5), the inner edges of the half-disks 11, 12 being hinged at 13, 14, respectively, to the disk 10 and being nearly opposite to each other on opposite sides of the center and on opposite 75 faces of said disk 10. The half-disk 11 will be opened outwardly toward the left on its hinged edge 13 in the direction of the dotted line 15, said half-disk describing in its movement a one-half circle; and the halfdisk 12 will be opened outwardly toward the right or 80 in the direction of the dotted line 16 and describe in its movement a one-half circle. The bank of strips of tissue paper 20 prepared in the usual well-known manner is fastened to the facing surfaces of the halfdisk 11 and backing disk 10, and a corresponding bank 85 of strips or pieces of tissue paper 23 is fastened to the facing surfaces of the half-disk 12 and backing disk 10, and hence when the half-disk 11 is turned to its full open position, it will cause the paper 20 to define a hemisphere, represented at 17 in Figs. 4 and 6, and 90 when the half-disk 12 is turned to its full open position, describing a half circle, it will draw the paper 23 connected with it outwardly to form a corresponding hemisphere, numbered 18, the hemispheres 17, 18, being back to back and constituting a complete sphere 95

A part of our invention resides in means for effecting the proper display of a motto or the like across the face of the globular body or one presenting a convex surface outline, and in carrying out this portion of our 100 invention we attach to the pasteboard card or disk 10 one end of a strip of paper or other suitable fabric 19 bearing the motto or other matter to be displayed, and form in the half-disk 11 or part to be turned from the base-piece 10 and also in the paper 20 held between 105 said pieces 10, 11, an undercut recess 21 of just about

859,280 2

the width of the strip 19, and preparatory to the turning to its open position of the half-disk 11 we press that portion of the strip 19 adjacent to the edge of the banked paper 20 and closed disk 11, into said recess 5 and then open the half-disk 11, using a reasonable amount of care to keep the strip 19 free to follow into the said recess as the latter elongates with the opening out of the half-disk 11, with the result that when the half-disk 11 has reached its full open position, the strip 10 19 becomes housed within the recess 21 and conforms itself to the convex exterior of the globular body thus formed, said strip 19 taking the position during the opening of the half-disk 11 indicated by the heavy dotted line 22 in Fig. 5, said dotted line representing 15 the strip after the half-disk 11 has been fully opened. The fact that the recess 21 is cut in the paste-board pieces and also in the paper 20, as well as being preferably undercut at its edges, results in the strip 19 being sunken within the surface of the convex body 17, 20 its edges being concealed and the strip not being liable to lose its position or be brushed or blown from said recess. One part of our invention resides, therefore, in the formation of a convex or globular body having the strip 19 seated within a recess therein, whether 25 that body is used as a part of a star or something else, and we may add that the strip 19 may be made long enough to extend entirely around the star or only one-half way around the same, as may be preferred, the only question being as to the length of the strip 30 employed.

If the strip 19 is to extend entirely around the body of the star, the said strip adjacent to its secured end will be moved into the recess 21 formed in the paper 20 and closed half-disk 11, and the latter will be moved 35 to its full open position, describing a half circle on the dotted line 15 of Fig. 5, and thereupon the strip 19 at the other edge (the left hand edge looking at Fig. 5) of the disk 10 will be pressed into a recess 21 in said disk, the half disk 12 and the paper 23 held by the same, in 40 the manner we have indicated at the end of the dotted line 22 at the left hand side of Fig. 5, and the half-disk 12 will thereupon be moved to its full open position, a little care being exercised to keep the paper strip within the recess of the half-disk 12 during the opening of the lat-45 ter, the result being that the paper strip will become wound entirely around the body composed of the two hemispheres and be snugly and neatly held in position. When the end of the strip 19 is fastened to the disk 10 or base part of the article and pressed into the recess of 50 the movable section or part thereof, said strip will naturally and very easily follow along the gradually elongated recess 21 without creating undue tension on the paper or becoming disarranged or taking any but the convex outline presented by the article to which it is 55 applied. If the fastened end of the strip 19 were carried by the movable half-disk 11 and pressed into the recess 21, said half-disk when moved to its open position, would drag the whole length of the strip along and through the gradually elongated recess 21, which would

60 not be desirable in its effect on the article. In the formation of the points of the star, we form the base-disk 10 with integral extensions 24 which are in the outline of about one-half of the point of a star, and to these extensions 24 hinge, at their straight edges 25, 65 paste-board pieces 26 corresponding in shape with said

extensions 24. Between the adjacent faces of the pieces 26 and the extensions 24 are the expansible paper strips 27 adapted to form the points of the star. In Fig. 1 the hinged back pieces 26 for the points of the star are shown in their closed or folded position, and as 70 shown in Fig. 1, the inner edges of the back pieces 26 are concaved to match the convex peripheral edge of the disk 10. When the paste-board pieces 26 are opened or turned to describe a half circle their inclined edges will reach the position of the dotted lines 28 in 75 Fig. 1, and at such time one side of the point of the star will have been formed, as shown in Fig. 6, but when it is desired to form a star having corresponding faces, the pasteboard pieces 26 will be caused, during their unfolding movement, to describe a complete circle, car- 80 rying their outer faces shown in Fig. 1 all the way around to engage with the outer faces of the fixed extensions 24, as shown in Fig. 4, the pieces 26 being then fastened to the extensions 24 by means of the small metal commonly-used fasteners 29. In the formation 85 of the star structure we may thus only move one halfdisk, say 12, to its open position to form a hemispherical body and turn the movable point-sections 26 through the line of a half circle to form points on said body, the whole then representing a star having a flat 90 back and convex face portions, or we may move both the half-disks 11, 12 to their full open position to create a ball or globular body and turn the point-sections 26 to their full open position to form the full cone-shaped star-points shown in Fig. 4, both sides of the star then 95 presenting full convex surfaces. The star-points at their bases are concave and fit closely upon the spherical body of the star, as denoted by dotted lines in Fig. 3, and this is important in that thereby we are enabled to produce a highly finished article and one of pleasing 100 appearance.

What we claim as our invention and desire to secure by Letters-Patent, is:

1. A cellular paper novelty comprising hinged back-sections, a bank of tissue paper pieces secured to the facing 105 surfaces of said back sections, said pieces being united at points to each other, whereby upon the unfolding of said sections a body having a rounded surface is formed, and an imprint strip applied to said parts for extension across said body, said body being recessed to receive and hold 110 said strip; substantially as set forth.

2. A cellular paper novelty comprising hinged back-sections, a bank of tissue paper pieces secured to the facing surfaces of said back sections, said pieces being united at points to each other, whereby upon the unfolding of said 115 sections a body having a rounded surface is formed, and an imprint strip applied to said parts for extension across said body, said body having an undercut recess to receive and hold said strip; substantially as set forth.

3. A cellular paper novelty comprising hinged back-sec- 120 tions, a bank of tissue paper pieces secured to the facing surfaces of said back sections, said pieces being united at points to each other, whereby upon the unfolding of said sections a body having a rounded surface is formed, and an imprint strip fastened at one end to one of said sections 125 for extension across said body, the said sections and bank being recessed to when folded receive said strip, whereby as the convex body is formed it follows along said strip and the latter becomes securely positioned; substantially as

4. A cellular paper novelty comprising hinged back-sections, a bank of tissue paper pieces secured to the facing surfaces of said back sections, said pieces being united at points to each other, whereby upon the unfolding of said sections a body having a rounded surface is formed, and 135 an imprint strip fastened at one end to one of said sections

130

for extension across said body, said sections and bank being formed with an undercut recess to receive while they are in folded condition said strip, whereby as the convex body is formed it follows along said strip and the latter becomes securely positioned; substantially as set forth.

5. A cellular paper novelty comprising hinged back-sections and a bank of tissue paper pieces secured to the facing surfaces of said back sections, said pieces being united at points to each other, whereby upon the unfolding of said sections a convex body is formed, one of said sections having an extension of predetermined outline projected from its edge, combined with a back-section corresponding in outline with and hinged at one edge to said extension, and a bank of the tissue paper pieces secured to the adjacent faces of said extension and its back-section, whereby upon the unfolding of said back-section the bank connected with it will expand and fit the said convex body and form a part projecting therefrom; substantially as set forth.

6. A cellular paper novelty comprising a body formed of 20 a base or back-section (10), half-sections (11, 12) hinged to the opposite faces of said back-section adjacent to a center line through the same and banks of tissue paper pieces secured to the facing surfaces of said sections, said pieces being united at points on their facing sides, said 25 back-section having at points along its periphery extensions of predetermined and corresponding outline, combined with back-sections corresponding in outline with and hinged at one edge to said extensions, and banks of the tissue paper pieces secured to the adjacent faces of said 30 extensions and their hinged back-sections; substantially as set forth.

7. A cellular paper novelty comprising back-sections, a bank of tissue paper pieces secured to the facing sides of said sections and said pieces being united at points to each other, whereby upon the unfolding of said sections said bank expands into the predetermined body intended to be

produced, and a flexible imprint strip applied to said parts for extension across said body during the unfolding of said sections; substantially as set forth.

8. A cellular paper novelty comprising back-sections, a 40 bank of tissue paper pieces secured to the facing sides of said sections and said pieces being united at points to each other, whereby upon the unfolding of said sections said bank expands into the predetermined body intended to be produced, and a flexible imprint strip fastened to one of 45 said sections for extension across said body as the other section is unfolded; substantially as set forth.

9. A cellular paper novelty comprising back-sections, a bank of tissue paper pieces secured to the facing sides of said sections and said pieces being united at points to 50 each other, whereby upon the unfolding of said sections said bank expands into the predetermined body intended to be produced, and a flexible imprint strip fastened to one of said sections for extension across said body as said sections are unfolded, said bank having an undercut recess to 55 receive and hold said strip; substantially as set forth.

10. A cellular paper novelty comprising back-sections, a bank of tissue paper pieces secured to the facing sides of said sections and said pieces being united at points to each other, whereby upon the unfolding of said sections said bank expands into the predetermined body intended to be produced, and a flexible imprint strip applied to said parts for extension across said body, said bank having an undercut recess to receive and hold said strip; substantially as set forth.

Signed at New York city, in the county and State of New York, this 2nd day of April, 1907.

HERMAN BERG. EKKO SOLLMANN.

Witnesses:

CHAS. H. NORTON, CHARLES B. KEABLES.