

No. 889,512.

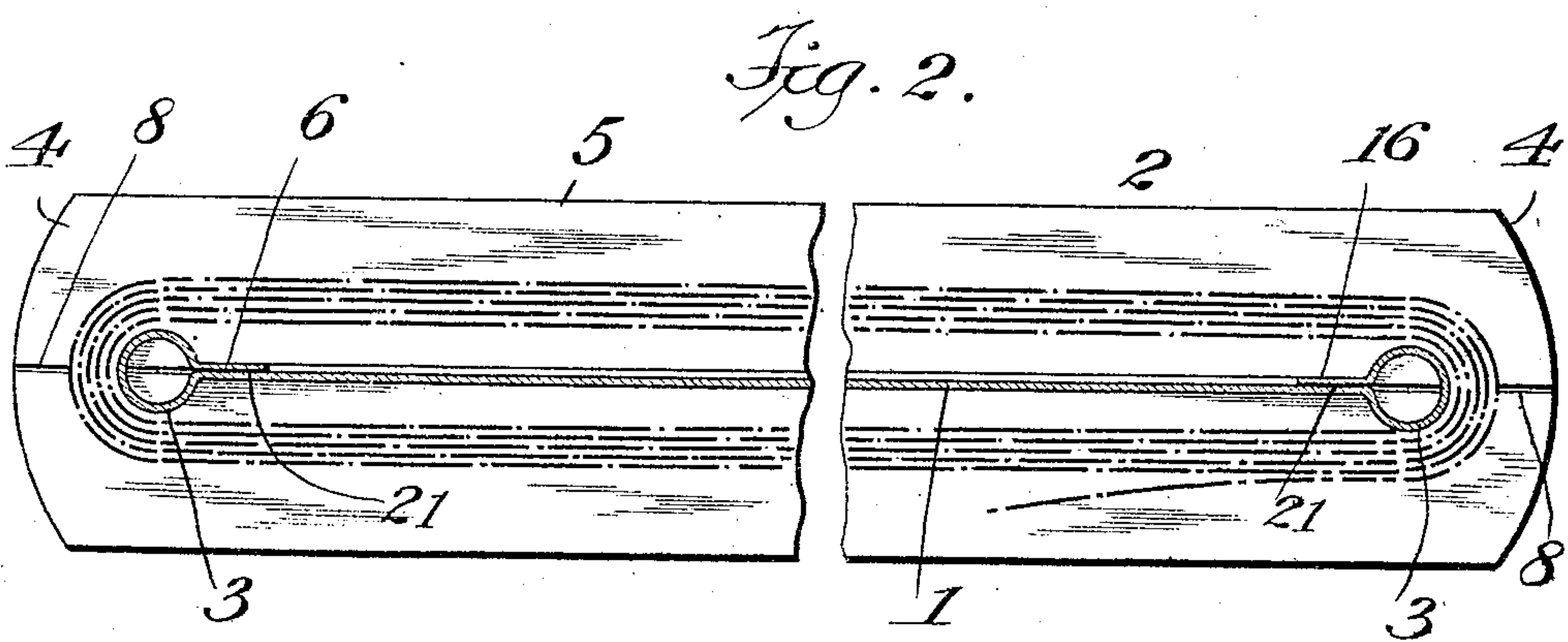
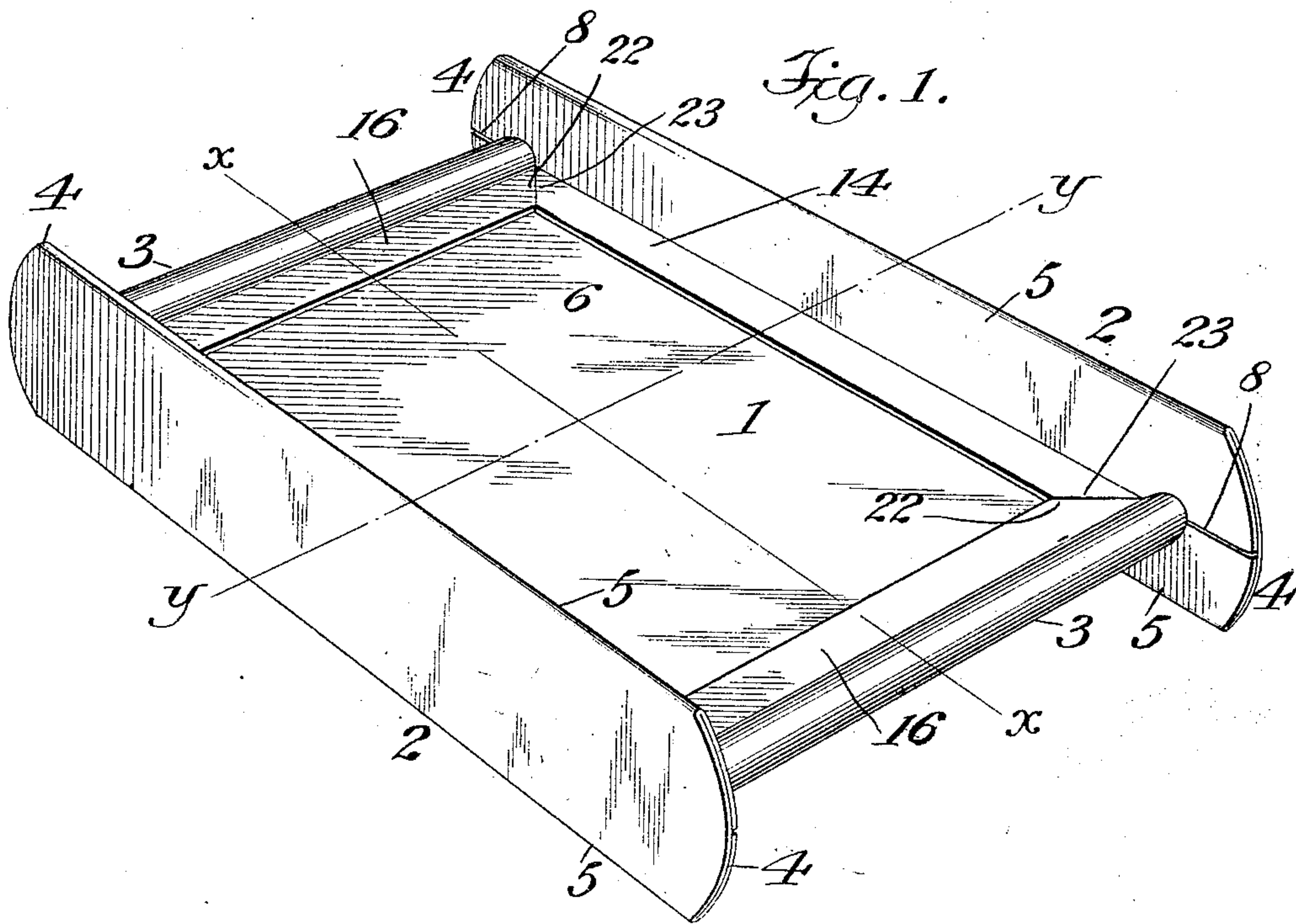
PATENTED JUNE 2, 1908.

W. R. DELANEY.

REEL FOR RUCHING, VEILING, AND LIKE FABRICS.

APPLICATION FILED SEPT. 18, 1906.

2 SHEETS—SHEET 1.



Witnesses
A. Appleman
Gene L. Cullen

Inventor
William R. Delaney
By his Attorney, *J. P. Little*

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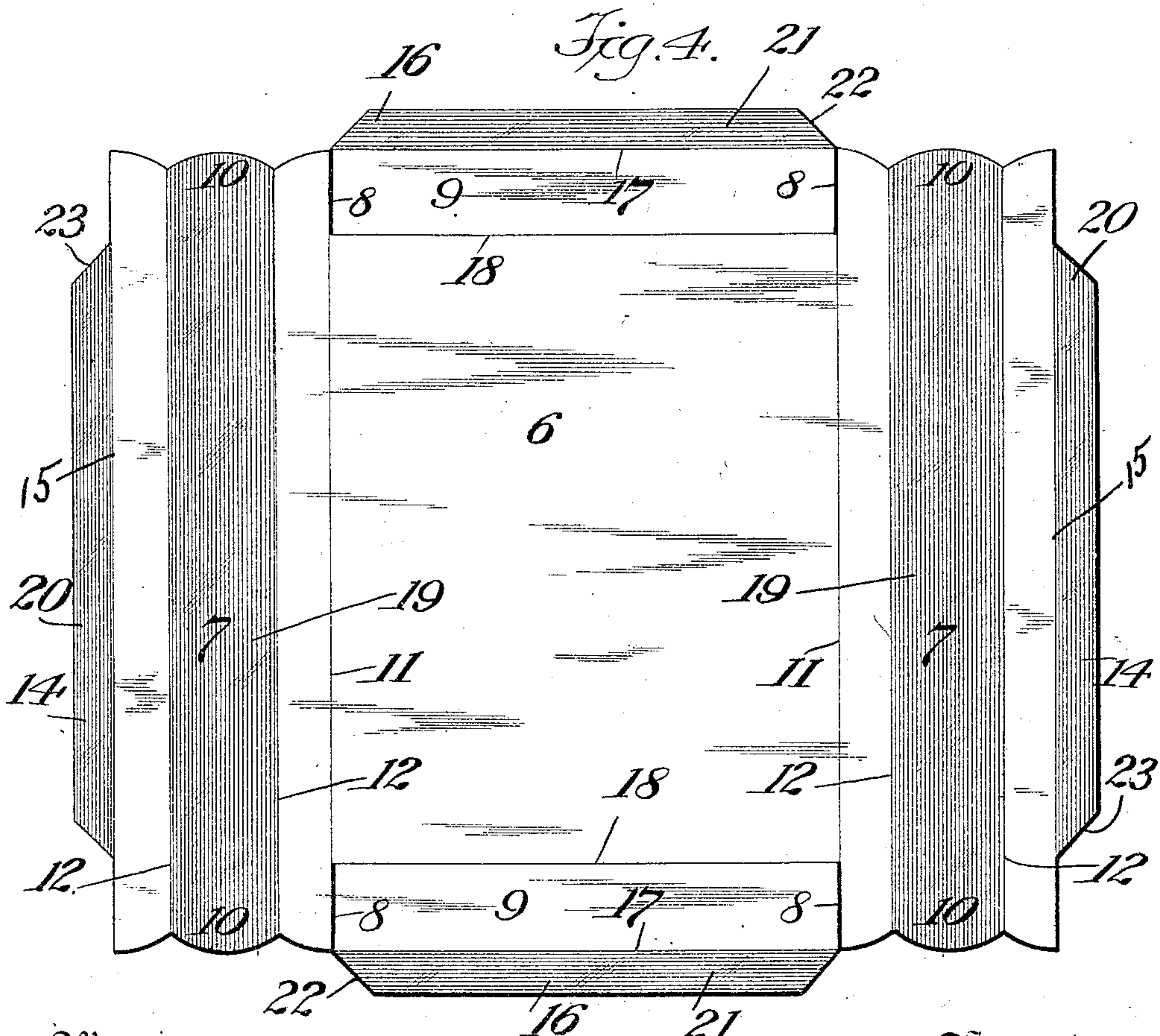
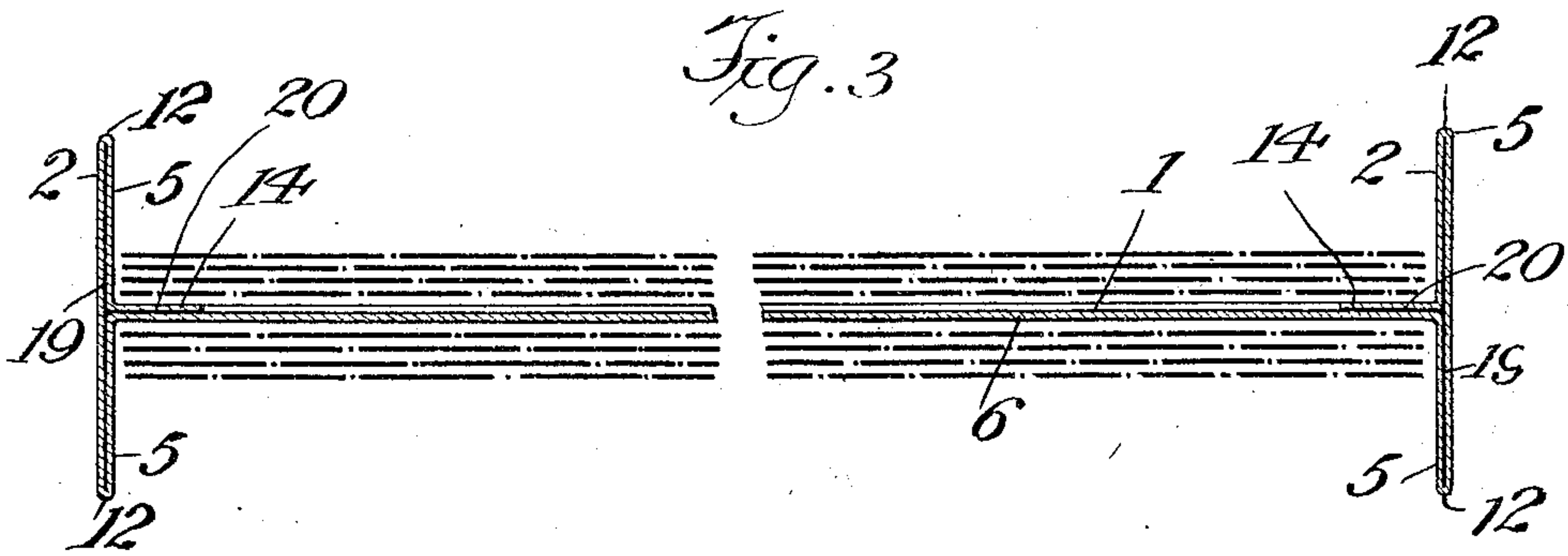
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UNITED STATES PATENT OFFICE.

WILLIAM R. DELANEY, OF NEW YORK, N. Y.

REEL FOR RUCHING, VEILING, AND LIKE FABRICS.

No. 889,512.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed September 18, 1906. Serial No. 335,115.

To all whom it may concern:

Be it known that I, WILLIAM R. DELANEY, a citizen of the United States, and resident of New York, in the county and State of New York, have invented certain new and useful Improvements in Reels for Ruching, Veiling, and Like Fabrics, of which the following is a specification.

This invention relates to reels such as are employed for winding ruching, veiling, and similar light fabrics and which are used in dry goods stores for the convenient and safe carriage of such fabrics and the sale of length from the same. Reels of this class as usually heretofore constructed have consisted of side-pieces of pasteboard connected by transverse dowel-rods of wood, the sides being connected to the dowels and the dowels being secured between the sides by tacks driven through the pasteboard sides into the ends of the dowels. Usually, in such previous constructions, the body space of the reel between the sides has been covered by a strip of paper surrounding and inclosing the set of transverse dowel-rods. The usual construction as just stated is not durable and does not effectively retain its normal form and is otherwise open to disadvantages and imperfections in use. For instance, the connection of the transverse wooden dowel-rods with the pasteboard side-pieces by means of tacks does not provide a secure fastening on connection; there is a disadvantageous swivel or twisting action between the transverse dowel-rods and the side-pieces, as the insecure driven-tack connection does not effectively resist the normal strain when the reel is in use, and in use said parts are liable to become accidentally disconnected from each other, while the paper covering surrounding and inclosing the series of transverse dowel-rods is liable to become broken and torn. This usual construction of reel is furthermore comparatively expensive in manufacture, as it is subject to construction by hand-work instead of machinery.

It is the object of my present invention and improvements to provide an improved reel of this class which will effectively overcome the objections and disadvantages above noted, which will be at all times rigid and efficient and durable in service, which can be economically and quickly manufactured, and which will furthermore possess advantages in point of strength, convenience, effectiveness, and general efficiency.

To these ends, my invention comprises an improved reel which is formed in its entirety of a single piece or blank of cardboard or analogous material, of such construction that the initial blank is of approximately rectangular contour and there is virtually no waste of material, which will embody all the component parts of the reel in said one-piece blank, and which can therefore be quickly and economically manufactured and will be rigid and effective and durable in service without liability to a twisting or swivel movement between the body of the reel and the sides, substantially as hereinafter described.

In the drawings—Figure 1 is a perspective view of the improved reel embodying my invention. Fig. 2 is a detail longitudinal sectional view, taken on the line $x-x$ of Fig. 1, showing in dotted lines the fabric carried by the reel. Fig. 3 is a detail transverse sectional view, taken on the line $y-y$ of Fig. 1. Fig. 4 is a plan view of the one-piece blank from which the reel in its entirety is constructed.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring to the drawings, 1 designates the body of the reel, 2—2 the sides, and 3—3 the rounded end-edges of the body. The body 1 is in effect a flat central web having the curved or rounded portions 3 extending transversely at its end edges, and the sides 2 extended longitudinally at the side edges of the body-web 1 and projecting at each end beyond the rounded edges 3, as at 4, and also projecting beyond both faces of the body-web 1 at right angles to said faces, as at 5.

In carrying out my present invention and improvements, the reel having the structural characteristics just stated is formed in its entirety by a single piece or blank of cardboard or analogous material, the initial contour of said one-piece sheet or blank being illustrated in Fig. 4.

6 designates the central portion of the blank, which is of rectangular contour and constitutes the body-web 1 and the rounded end portions 3, while from each side edge of the portion 6 projects a wing, 7, constituting the sides 2. At the junction of the end portions of the wings 7 and the main or central portion 6, a kerf or slit, as at 8, is provided, whereby the end portions of the wings are separated from the main portion 6, thus enabling the end parts, 9—9, of the portion 6 to be turned and curved into position to form

the rounded ends 3 and leave the end portions, 10, of the wings 7 projecting beyond the parts 9 to form the projecting side-terminals 4. A fold line is provided for each wing 7 at its junction with the portion 6, as at 11, and the body of the wing is provided with two longitudinal parallel fold lines, as at 12—12, whereby the wing will fold upon itself to form a double thickness of cardboard constituting the side 2 (see Fig. 3), the relative construction being such that one-half the body of the wing folds into two parallel thicknesses which constitute the part of the side 2 which projects beyond one face of the body-web 1, while the other half of the body of the wing correspondingly folds to form the part of the side 2 which oppositely projects beyond the other face of the body-web 1. At the outer edge of each wing 7 is an extension strip, 14, which terminates within the projecting end portions 10 and rests parallel to the surface of the main portion 6 when the wing is folded into position to form the side 2, for which purpose a fold line is formed at the junction of the extension strip 14 with the body portion of the wing 7, as at 15. The end parts 9 of the central portion 6 have an extension strip, 16, at their outer edges, projecting beyond the kerfs or slits 8, which extension strip rests parallel to the surface of the main portion 6 when the end part 9 existing between the kerfs or slits 8 is turned and curved over to form the rounded edge 3 (see Fig. 2), for which purpose a fold line is formed at the junction of said extension strip 16 with the part 9, as at 17. A supplemental fold line, as at 18, may be formed at the junction of the end part 9 with the central portion 6, to facilitate the uniform curving or rounding of the part 9 in the formation of the rounded edges 3.

The one-piece sheet or blank, constructed as above described, is secured in folded position, to constitute the complete reel in its entirety, in any suitable or adapted manner, preferably by the employment of glue or other adhesive material. The adhesive material can be provided at the inner face of the wings 7, between the fold lines 12, as at 19, so that it will adhere to the inner faces of the folded portions of the wings which are outside said fold lines 12, and likewise at the inner face of the wing extension-strips 14, as at 20, so that it will adhere to the surface of the central portion 6 when the wings 7 are folded into operative position (as shown in Fig. 3), and likewise at the face of the end extension-strips 16 of the parts 9, as at 21, so that it will adhere to the surface of the central portion 6 when said parts 9 are turned and curved into operative position (as shown in Fig. 2).

It will be noted that the extension-strips 16 are at right angles to the extension-strips 14, when in folded position, and preferably

the corners of said strips 16 and 14 are mitered, as at 22 and 23, respectively, so that the corners of the strips will not overlap when the strips are in secured connection with the face of the portion 6; but this mitering is not an essential feature of the construction, and it will be furthermore noted that the parts 9 can be turned and curved in either direction so that their extension-strips 16 can be secured to either face of the central portion 6, as described.

The respective fold lines 11, 12, 15, 17 and 18 may be formed by simply creasing the sheet or blank, or by scoring, or in any other suitable and adapted manner.

The advantages of my invention and improvements will be readily understood. The single or one-piece sheet or blank, which constitutes in its entirety the complete reel, is initially of approximately rectangular contour, whereby economy in material is insured, the only waste portions being the relatively small cut-away parts at the ends of the wings. The contour of the blank thus not only insures economy in material, but it furthermore enables easy and economical manufacture, it being only necessary to first bring the wings to folded position (as shown in Fig. 3) and secure their strips 14 to the face of the portion 6, after which the parts 9 can be turned and curved to form the rounded edges 3 (as shown in Fig. 2) and their strips 16 secured to the face of the central portion 6, and the reel is then completed in its entirety. The relative construction and arrangement is such that the folding and securing of the side wings 7 and the end parts 9 can be quickly and effectively accomplished by simple machinery, and the improved contour and construction providing a double thickness at the sides 2 affords special strength and rigidity in these parts which are most liable to strain, while the curved folding of the end parts 9 braces and strengthens the body-web 1 and imparts firmness and rigidity to the whole structure against a twisting or swivel movement.

I do not desire to be understood as limiting myself to the detail construction and arrangement of parts as herein shown and described, as it is manifest that variations and modifications therein may be resorted to, in the adaptation of my invention to varying conditions of use, without departing from the spirit and scope of my invention and improvements. I therefore reserve the right to all such variations and modifications as properly fall within the scope of my invention and the terms of the following claims.

Having thus described my invention, I claim and desire to secure by Letters Patent:

1. As an improved article of manufacture, a reel of the class described having its framework integrally constructed of a one-piece sheet or blank of foldable material, said

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blank comprising a flat central portion forming the transverse body-web and having at its opposite side-edges wings forming when folded the sides projecting above and below the body-web portion, said wings having an extension secured to the face of the body-web at the longitudinal side-edge portion thereof.

2. As an improved article of manufacture, a reel of the class described having its framework integrally constructed of a one-piece sheet or blank of foldable material, said blank comprising a flat central portion forming the transverse body-web and having at its opposite side-edges wings forming when folded the sides projecting above and below the body-web portion, said wings having an extension secured to the face of the body-web at the longitudinal side-edge portion thereof, and said body-web having its end-edges turned and curved to form rounded edges and secured to the face of the web at the transverse end-edge portion thereof, whereby the central body-web portion of the blank is reinforced.

3. An improved reel of the class described, having a body-web formed of a single sheet or blank of stiff foldable material having its transverse end-edges turned and curved to form curved or rounded terminals at the respective ends of said body-web, and having sides formed by folded extensions of said sheet or blank and projecting at the longitudinal side-edges of the web-portion beyond the body-web in a plane at right angles to the plane of the web.

4. An improved reel of the class described, comprising a body-web having curved or rounded end-edges and sides and formed of a one piece sheet or blank of foldable ma-

terial, the body-web being formed by the central or main portion of the blank, the curved or rounded end-edges being formed by the ends of said central or main portion, and the sides being formed by folded wings carried by said central or main portion.

5. An improved reel of the class described, having a body-web and sides formed of a one-piece sheet or blank of foldable material, said blank comprising a central or main portion forming the body-web, and side wings carrying extension-strips and having longitudinal fold lines in the main portion of the wing and between the wing and the body-web and between the wing and its extension, substantially as set forth.

6. An improved reel of the class described, having a body-web and sides formed of a one-piece sheet or blank of foldable material, said blank comprising a central or main portion forming the body-web and having end parts forming rounded end-edges and carrying extension-strips, and side wings carrying extension-strips, said body-web having kerfs or slits between its end parts and the side wings, said end parts of the body-web having a longitudinal fold line between their main portion and their extension-strips, and said side wings having longitudinal fold lines in the main portion of the wing and between the wing and the body-web and between the wing and its extension, substantially as set forth.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

WILLIAM R. DELANEY.

Witnesses:

JOS. REED LITTELL,
BESSIE COSTIGAN.