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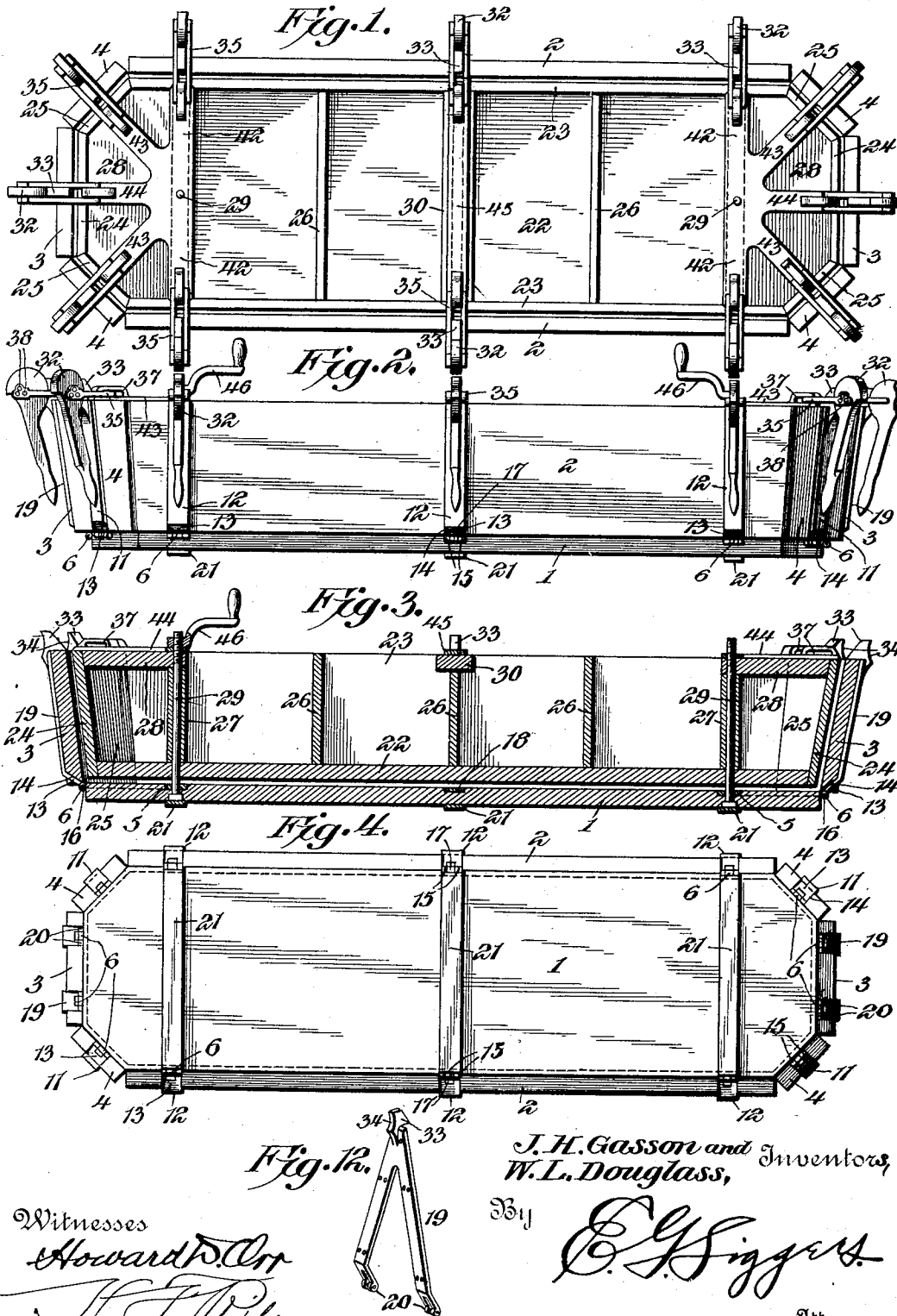
PATENTED OCT. 4, 1904.

J. H. GASSON & W. L. DOUGLASS.
MOLD FOR MAKING PAPER BOARD RECEPTACLES.

APPLICATION FILED JUNE 26, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



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No. 771,303.

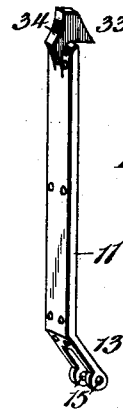
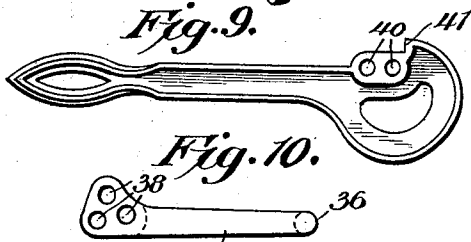
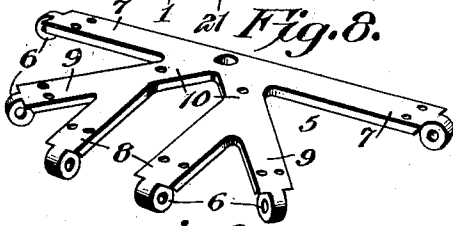
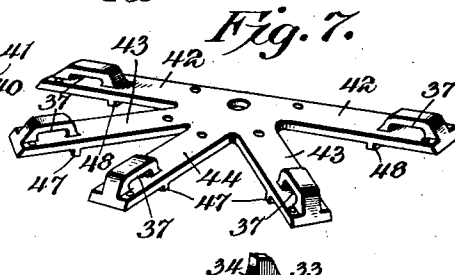
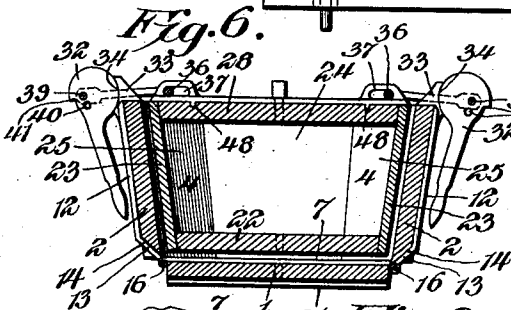
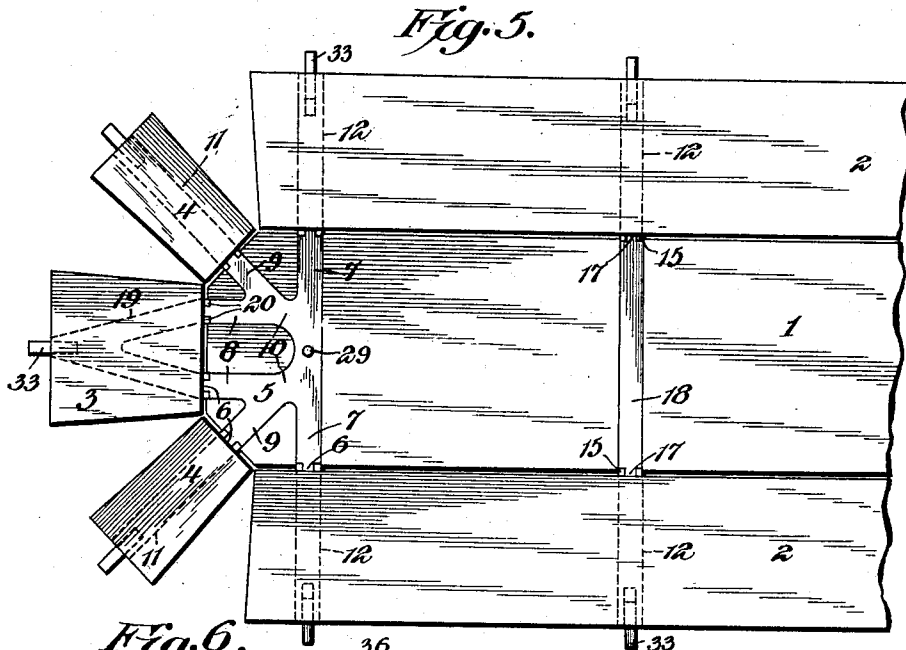
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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MOLD FOR MAKING PAPER-BOARD RECEPTACLES.

SPECIFICATION forming part of Letters Patent No. 771,303, dated October 4, 1904.

Application filed June 26, 1903. Serial No. 163,273. (No model.)

To all whom it may concern:

Be it known that we, JAMES H. GASSON and WILLIAM L. DOUGLASS, citizens of the United States, residing at Missouri Valley, in the county of Harrison and State of Iowa, have invented a new and useful Mold for Making Paper-Board Receptacles, of which the following is a specification.

The invention relates to improvements in molds for making paper-board burial-caskets and other receptacles.

The object of the present invention is to improve the construction of molds for making paper-board burial-caskets and other receptacles and to provide a simple and comparatively inexpensive mold of this character of great strength and durability capable of ready adjustment for making burial-caskets and other receptacles with thick or thin walls and adapted when not in use to be compactly arranged.

A further object of the invention is to improve the construction of the adjusting devices for exerting pressure on the walls of a burial-casket or other receptacle and to enable the same to be conveniently arranged while preparing and arranging the material in the mold.

Another object of the invention is to enable such articles to be molded in less time than has heretofore been required and to reduce the labor and to enable a burial-casket or other receptacle to be molded without the formation of the ridge, which has heretofore been left on the exterior when molds with hinged sides and ends have been employed and which has to be planed or dressed off after the burial-casket is removed from the mold.

The invention also has for its object to provide a mold which will prevent the paper from slipping down and leaving an interior air-space.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in

the claims hereto appended, it being understood that various changes in the form, proportion, size, and minor details of construction within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a plan view of a mold constructed in accordance with this invention. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal sectional view. Fig. 4 is a reverse plan view. Fig. 5 is a plan view showing the hinged sides and ends arranged in a horizontal position in the same plane as the base-board or bottom. Fig. 6 is a transverse sectional view of the mold. Fig. 7 is a detail perspective view of the top spider or leaf for connecting the links with the core or plunger. Fig. 8 is a similar view of the lower spider or leaf for connecting the sides and end pieces with the base-board or bottom of the outer form. Fig. 9 is a detail view of one of the cam-levers. Fig. 10 is a similar view of one of the links. Fig. 11 is a detail view of one of the bars or standards which are engaged by the cam-levers. Fig. 12 is a detail view of the V-shaped bar or standard, which forms one of the leaves for connecting the central end piece with the base-board or bottom of the form.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

In the accompanying drawings the invention is shown applied to a mold for making burial-caskets; but the mold is adapted for the manufacture of various other receptacles, and it consists, essentially, of an outer form and an inner core or plunger. The outer core comprises a base-board or bottom 1, hinged sides 2, and hinged ends or end pieces 3 and 4, which may be straight and arranged at an angle, as illustrated in Fig. 1, to provide a burial-casket of the form shown; but the end pieces may be curved to provide half-round or semi-elliptical ends, or any other desired shape may be employed. The base-board or

bottom is provided at each end with a leaf or spider 5, of malleable cast metal or other suitable material, and it is shaped, as shown in Fig. 5, to conform to the configuration of the casket. The leaf or spider 5 consists of a series of integral arms arranged at an angle and provided at their outer ends with eyes 6. The upper face of the bottom or base-board is recessed to receive the spider or leaf 5, which has its upper face flush with the upper face of the base-board or bottom. The arms 7 are disposed transversely of the mold and form a transverse bar, and the arms 8 and 9, which are arranged in pairs, are disposed at an acute angle to each other and are connected with the arms 7 by a short stem 10, making a substantially Y-shaped portion at each side of the center of the leaf or spider 5. The laterally-extending transverse arms 7 are connected with the sides 2 near the ends thereof, and the arms 8, which are disposed longitudinally of the mold, are parallel with each other and are connected with the central end piece 3. The other arms 9, which are located between the arms 7 and 8, are disposed diagonally of the ends of the bottom or base-board and are connected with the end pieces 4. The end pieces 4 are provided with exteriorly-arranged bars or standards 11 of the form shown in Fig. 11 of the drawings, and the sides 2 have similar bars or standards 12. These bars or standards 11 and 12 have lower portions 13 arranged at an angle to the body portion of the bar or standard and disposed at an inclination when the sides and end pieces are in an upright position, the sides and end pieces being provided with recesses 14 to receive the lower portions 13 of the bars or standards. The lower ends of the bars or standards are bifurcated and provided at opposite sides of the bifurcation with eyes 15 to receive pintles 16 for connecting the bars or standards with the eyes 6 of the leaves or spiders 5 and with eyes 17 of a transverse bar 18. The eyes are located slightly below the plane of the upper face of the bottom or base-board 1 to bring the lower inner edge of the sides and end pieces in contact with the upper edges of the base-board or bottom 1 when the said sides and end pieces are in an upright position, whereby the mold is adapted to produce a burial-casket or other receptacle devoid of the exterior ridge which has heretofore been formed at the bottom of burial-caskets where molds having hinged sides and ends have been employed. These exterior ribs have to be planed or dressed off after the caskets are removed from the mold, and by molding burial-caskets without such ridge considerable time and expense are saved in the construction of burial-caskets; also, the paper is prevented from slipping down and forming interior air-spaces, which are objectionable. Furthermore, by arranging the

hinges in this manner the sides and end pieces are permitted to swing outward and downward into the same horizontal plane as the base or bottom board, thereby greatly facilitating the proper arrangement of the layers of paper on the outer form when burial-caskets with thick walls are to be molded. The recesses 14 permit the eyes of the hinge to be arranged in proper position without interfering with the movement of the sides and end pieces. The transverse bar 18 is arranged in a groove or recess of the base-board or bottom 1, which presents a smooth upper face to the material and which is greatly strengthened by the transverse bar and the spiders or leaves 5.

The central end piece 3 is provided with a V-shaped standard or piece 19, having downwardly-diverging sides terminating in eyes 20, which are hinged to the eyes of the longitudinal arms 8 of the leaf or spider. The V-shaped standard or piece 19 is arranged on the exterior of the central end piece 3, and the lower ends of the sides are arranged at an angle and inclined when the end piece 3 is in an upright position. Suitable recesses are provided in the lower edges of the central end piece to receive the inclined portions of the sides of the V-shaped standards or pieces.

The bottom or base-board is provided at its lower face with transverse bars or cleats 21, constructed of metal or other suitable material and adapted to strengthen the base-board or bottom of the form.

The core is composed of a bottom 22, sides 23, and end pieces 24 and 25, all rigidly connected together. The sides are supported by intermediate and end partitions or braces 26 and 27, which effectually prevent the core from collapsing when subjected to great lateral pressure. The end transverse braces or partitions are connected with the end pieces by horizontal top braces or sections 28, conforming to the configuration of the ends of the core and arranged within the same and secured to the upper edges of the end braces 27 and to the inner faces of the end pieces 24 and 25, whereby the latter are effectually prevented from collapsing. The end braces 27 are thicker than the intermediate braces 26 and are provided with perforations to receive rods or posts 29, which pierce the core from top to bottom, as hereinafter explained. The core is also braced at the upper edge of the central transverse brace by a bar 30, which extends across the core, as shown in Figs. 1 and 3. The sides and end pieces are drawn inward to produce the desired or necessary pressure on the material by means of cam-levers 32, which engage the upper ends of the standards of the sides and end pieces and which are connected with the core at the top thereof. The standards are provided at their upper ends with approximately triangular enlargements 33, disposed trans-

versely of the upper edges of the sides and end pieces and extending across the same to the inner faces thereof and presenting inclined inner edges and curved outer edges or faces 34, which are adapted to be engaged by the curved or peripheral edges of the cam-levers. The curved edges are disposed in substantially an upright position, as shown in Fig. 6, when they are engaged by the cams of the levers, and the sides and end pieces are thereby positively locked in engagement with the material. The cam-levers are provided with eccentrically-pivoted approximately circular heads and are connected with the top of the core by approximately U-shaped links 35. The links 35 are composed of two sides and a connecting portion 36, which is rounded and which is adapted to be arranged in a slot or opening 37 of an elongated eye. The sides of the link are preferably enlarged and provided with a plurality of perforations 38 to permit an adjustment of the pivot-pin 39 of the cam-lever 32. The cam-lever 32 is also provided with a plurality of perforations 40 to permit an adjustment of the pivot. The cam-lever is provided at one end of its curved or peripheral edge with a shoulder 41, formed by a notch or recess and adapted to be readily engaged with the upper end of the enlargement of the standard, whereby the sides and ends may be readily drawn inward. The adjustment of the link and the lever permits the parts to be readily arranged for molding burial-caskets having thick or thin walls. The core is provided at its ends with a spider or plate having projecting arms 42, 43, and 44, which are provided at their outer ends with the elongated eyes for the reception of the connecting portions of the links. The arms 42 are disposed transversely of the mold and the arm 44 is arranged longitudinally of the casket-mold. The arms 43 are arranged midway between the arms 42 and 44 and are disposed diagonally of the end of the core. The core is also provided with a central transverse bar 45, mounted on the brace 30 and provided at its ends with elongated eyes having slots or openings 37.

The casket is built up of laminae of paper-board and hydraulic cement or other suitable material, the paper-board and the cement alternating with each other and blanks being provided. In the manufacture of caskets having thick walls the core or plunger is removed from the posts 29 and the sides of the mold are folded down to a horizontal position, as illustrated in Fig. 5 of the drawings. The blanks after having been properly coated with cement are then placed on the base-board, each blank having been perforated to receive the posts or rods 29. When sufficient blanks have been put in place to form the walls of the desired thickness, the core or plunger is placed on the posts or rods and clamped down upon

the blanks by the means hereinafter described. The blanks are then one by one bent upward around the core or plunger, after which the sides and end pieces of the form are swung upward and clamped by the cam-levers. The sides are swung up first and the end portions of the blanks are folded around the ends of the core or plunger, after which the end pieces are brought up into their engaging position. The casket is allowed to remain in the mold until it properly dries and hardens. The posts or rods which pierce the bottom or base-board of the form have their heads interposed between the same and the adjacent bars or cleats 21, and they extend upward through the core. The upper ends of the rods or posts project above the core and are threaded to receive suitable nuts 46, which are preferably provided with crank-handles to enable them to be quickly adjusted. The arms of the spider of the core and the cross-bar 45 are provided with depending lugs 47 and 48 for engaging the core.

It will be seen that the mold for making paper-board burial-caskets and other receptacles possesses great strength and durability, that it is capable of ready adjustment to enable walls of the desired thickness to be readily molded, and that it will lessen the labor of molding the receptacles and enable the same to be produced in a much less time than has heretofore been required with this class of molds. Furthermore, it will be clear that caskets and other receptacles may be molded without the formation of the ridge, which has heretofore been made at the joints of the sides and end pieces and which must be planed off after the casket is removed from the mold; also, the mold is adapted to prevent the paper from slipping downward and producing interior air-spaces, and the corners may be made more solid than heretofore, owing to the ease with which the pressure is applied. In applying the pressure to the sides and ends the paper is forced upward, making the sheets fit snug and smooth and enabling the ends of the casket to be constructed with greater facility than heretofore. The cam-levers and the links are adapted to be swung backward over the core to arrange them out of the way when placing the material in the mold and when removing the casket therefrom.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A mold of the class described comprising a form having sides and ends hinged at the bottom, a core, links hinged to the core and arranged to swing inward and outward, and cam-levers connected with the links and arranged to detachably engage the sides and ends and adapted to be swung over upon the core, substantially as described.

2. A mold of the class described comprising

a form having sides and ends hinged at the bottom, a core, cam-levers arranged to engage the sides and ends, and links connected with the cam-levers and hinged to the core and adapted to be swung backward over the same, substantially as described.

3. A mold of the class described comprising a form having sides and ends hinged at the bottom, a core provided at the top with eyes, links arranged in the eyes, and cam-levers mounted within the links and arranged to engage the sides and ends of the form at the tops thereof, substantially as described.

4. A mold of the class described comprising a form having sides and ends hinged at the bottom and provided at the top with projecting portions, a core, and cam-levers connected with the core and provided with shoulders to engage the projecting portions of the sides and ends, substantially as described.

5. A mold of the class described comprising a form having sides and ends hinged at the bottom, a core, cam-levers connected with the core and provided with shoulders, and projections mounted on and located at the tops of the sides and ends of the form and having curved outer edges to receive the cam-levers, said projections being also adapted to be engaged by the shoulders of the cam-levers, substantially as described.

6. A mold of the class described comprising a form having sides and ends hinged at the bottom and provided at the top with projecting portions, a core provided at the top with eyes, approximately U-shaped links arranged in the eyes, and cam-levers pivoted between the sides of the links and arranged to engage the projecting portions of the sides and ends, substantially as described.

7. A mold of the class described comprising a form having sides and ends hinged at the bottom, a core, a spider or plate mounted on the core at the top thereof and provided with arms, links hinged to the arms and arranged to swing inward over the core, and means carried by the links for adjustably connecting the sides and ends with the core, substantially as described.

8. A mold of the class described comprising a form having sides and ends hinged at the bottom, a core, spiders mounted upon the core at the ends thereof and having outwardly-extending arms, adjusting devices mounted on the arms and connected with the sides and ends of the form, a transverse bar arranged on the core between the spiders, and adjusting devices located at the ends of the transverse bar and connecting the same with the sides of the form, substantially as described.

9. A mold of the class described comprising a form having sides and ends hinged at the bottom, a core, spiders mounted on the core at the ends thereof and provided with arms hav-

ing eyes, said arms being also provided with depending lugs engaging the core, a transverse bar mounted on the core and provided with eyes and having depending lugs for engaging the said core, links arranged in the eyes, and cam-levers carried by the links for engaging the sides and ends of the form, substantially as described.

10. A mold of the class described comprising a form having sides and ends hinged at the bottom, a core composed of a bottom, sides and ends fixed to the bottom, intermediate and end transverse braces, and the end sections arranged at the top of the core and connected with the end braces and the sides and ends of the core and arranged to brace the said ends, and adjusting devices mounted upon the end sections of the core and connected with the sides and ends of the form, substantially as described.

11. A mold of the class described comprising a form composed of a bottom provided with eyes, and sides and ends provided with standards having angularly-disposed lower portions located in recesses or cut-away portions of the sides and ends and hinged to the eyes of the bottom, and adjusting devices connected with the sides and ends of the form, substantially as described.

12. A mold of the class described, comprising a form composed of a bottom, and sides and ends provided with standards having inclined lower portions hinged to the bottom, said standards being extended along the sides and ends and projecting at the tops thereof, and adjusting devices connected with the upper ends of the standards, substantially as described.

13. A mold of the class described, comprising a form composed of a bottom, and sides and ends, a spider mounted upon the bottom and having outwardly-extending arms provided with eyes, standards mounted on the sides and ends and hinged at one end to the eyes of the spider and having their upper ends projected above the sides and ends of the form, and adjusting means connected with the upper ends of the standards, substantially as described.

14. A mold of the class described comprising a form composed of a bottom, sides and ends, a spider secured to the bottom and having outwardly-extending arms, standards secured to the sides and ends of the form and arranged exteriorly thereof, the lower ends of the standards being hinged to the arms of the spider and the upper ends of the standard being extended above the tops of the sides and ends of the form, and means connected with the extended upper ends of the standards for adjusting the sides and ends of the form, substantially as described.

15. A mold of the class described comprising

ing a form having hinged sides and ends and
provided with a bottom spider, said form be-
ing also provided with standards hinged to the
spider, a core having a spider, and adjusting
5 means connected with the spider of the core
and with the standards of the sides and ends,
substantially as described.

In testimony that we claim the foregoing as

our own we have hereto affixed our signatures
in the presence of two witnesses.

JAMES H. GASSON.
WILLIAM L. DOUGLASS.

Witnesses:

C. W. KELLOGG,
F. W. MYERS.