

No. 646,242.

Patented Mar. 27, 1900.

E. L. WALKER.
BASKET WEAVING MACHINE.

(Application filed May 22, 1899.)

(No Model.)

3 Sheets—Sheet 3.

FIG. 6.

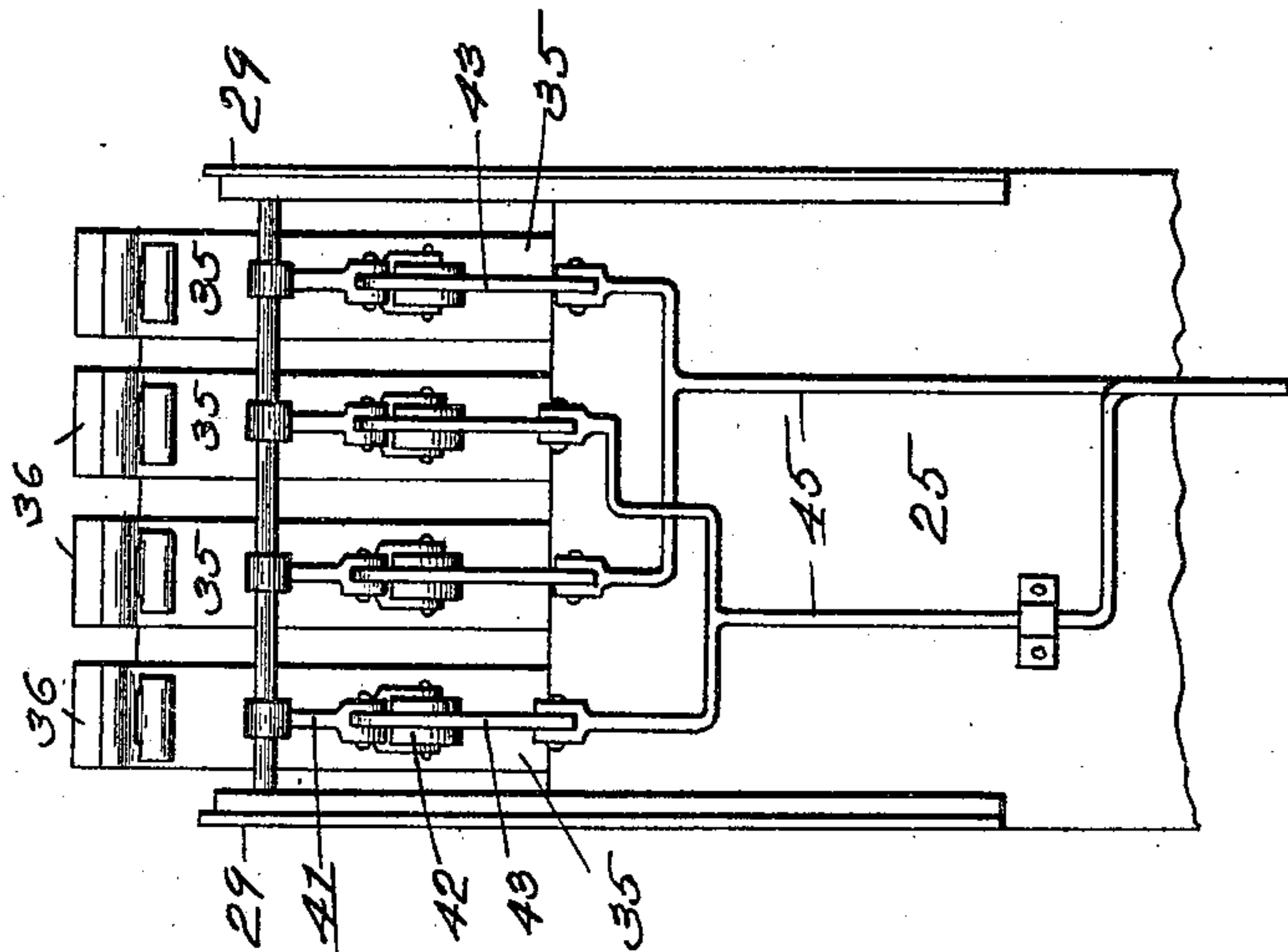
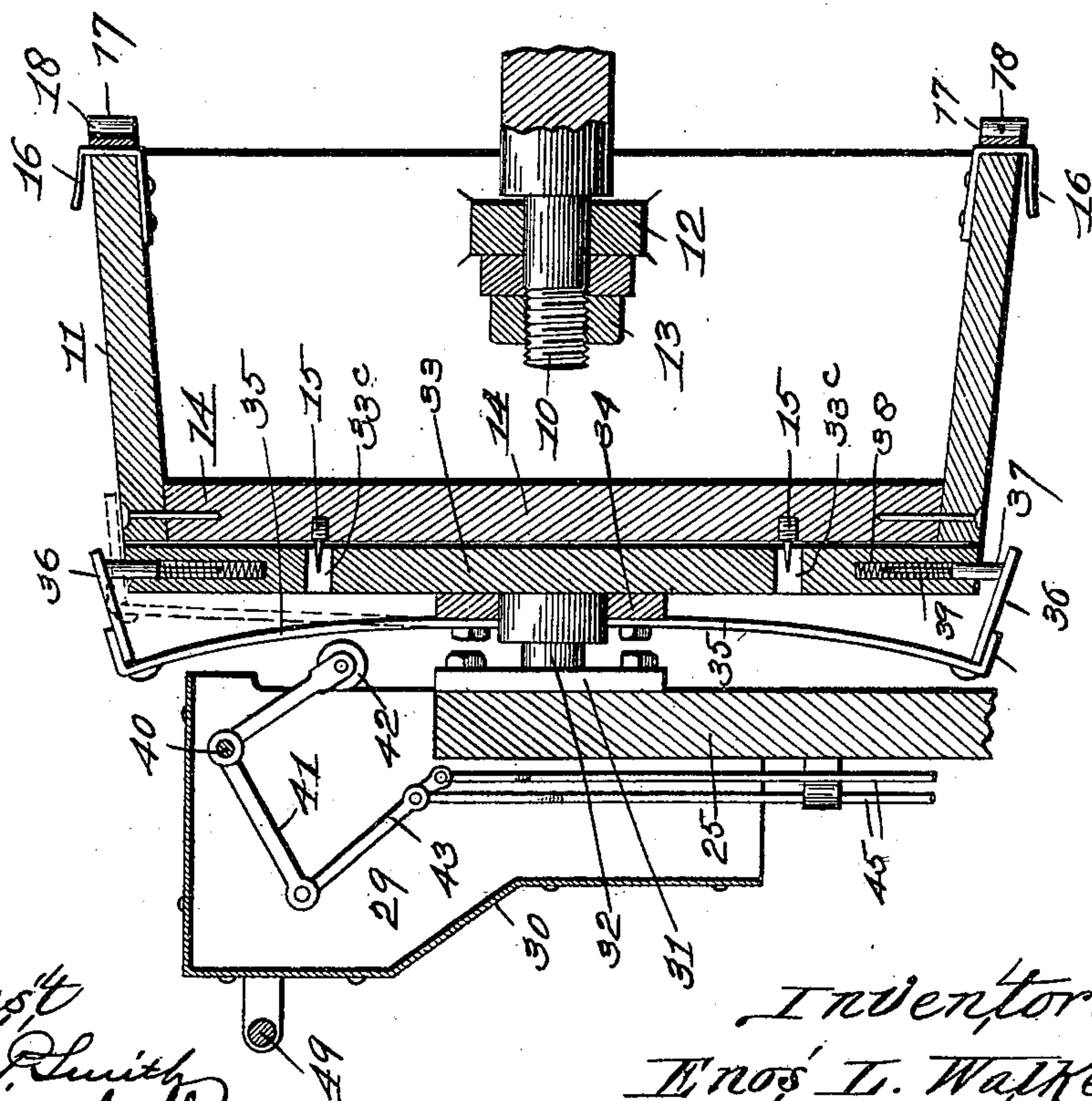


FIG. 5.



attest
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UNITED STATES PATENT OFFICE

ENOS L. WALKER, OF ST. LOUIS, MISSOURI.

BASKET-WEAVING MACHINE.

SPECIFICATION forming part of Letters Patent No. 646,242, dated March 27, 1900.

Application filed May 22, 1899. Serial No. 717,712. (No model.)

To all whom it may concern:

Be it known that I, ENOS L. WALKER, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Basket-Weaving Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to basket-forming machines; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

Figure 1 is a side elevation of my improved basket-forming machine. Fig. 2 is a front elevation thereof. Fig. 3 is a plan view of the form around which the basket-web is bent and parts contiguous thereto. Fig. 4 is a front elevation of this form. Fig. 5 is a vertical sectional view taken approximately on the line 5 5 of Fig. 3. Fig. 6 is a front elevation of the upper portion of a hinged member and showing the mechanism carried by the upper end of said member that actuates the straps that bend the splints over the form.

Referring by numerals to the accompanying drawings, 1 indicates a suitable base from which extends upwardly a standard 2, the upper end of which carries a table 3, and the rear end of said table 3 is supported by a brace 4. Hinged to the rear end of said table is an extension-leaf 5, and hinged to the rear end of said leaf 5 is an upwardly-projecting leaf 6, the outer end of the leaf 5 being supported by a brace 7, the lower end of which normally engages against the brace 4. The hinged leaves 5 and 6 when supported in the positions shown in Fig. 1 form a rest for the webs from which the baskets are to be formed.

Rigidly fixed to the top of the table 3 is a plate 8, in which is formed a pair of depressions 9, which depressions are used as tack-receptacles, and the forward end of the plate 8 extends forwardly over the front edge of the table 3, and its forward end is formed into a trunnion 10.

11 indicates the form over which the basket-webs are bent, said form being constructed of a single hollow block cast in one piece and provided adjacent its rear face with the transverse bar 12, through which the trunnion 10 passes, and a nut 13, located upon the screw-threaded end of the trunnion 10, retains the

form 11 upon said trunnion 10. Extending vertically between the front edges of the top and bottom portions of the form 11 is a bar 14, in which is seated a pair of forwardly-projecting pins 15, the same being intended to engage the web of which the basket is formed when the same is positioned against the front face of said form. Secured to the centers of the rear edges of the top and bottom portions of the form 11 are the forwardly-projecting spring-clips 16, the same being intended to engage the stiffening-strip around the edge of the form, and secured to the faces of the edge of the form 11 immediately over these clips 16 are the straps 17, in the center of each of which is formed a depression 18.

19 indicates a vertically-arranged spring-bar, the lower end of which is rigidly fixed to the plate 8, the upper end of which carries a vertically-arranged roller 20, which normally engages in one of the depressions 18. This device is intended to hold the form in the correct vertical position at the time while the web is being bent around said form. A slight pressure of the form 11 in either direction will cause this roller 20 to ride out of its recess and allow the form to be rotated upon the trunnion 10.

Extending upwardly from the sides of the base 1 in a plane just below the front face of the form 11 is a pair of standards 21, the same carrying a transverse bar 22, the same being arranged at a predetermined distance below the lower edge of the form 11, and carried by the ends of said bar 22 are angle-plates 23, the left-hand one of which is much longer than the opposite one, and said angle-plates form guides and rests for the edges of the basket-web while it is being bent and woven over the form 11.

Hinged at its lower end between a pair of lugs 24, that are carried by the base 1, is a vertically-arranged swinging bar 25, and extending upwardly from the base 1 between the lugs 24 is a segmental bracket 26, the same passing through an aperture 27, formed in the lower portion of the bar 25, and lugs 28 are formed integral with said bracket 26, which lugs are so located as that they will restrict the swing of the bar 25. Extending upwardly and forwardly from the upper side edges of this bar 25 are plates 29, the same being in-

closed by a sheet-metal housing 30. A plate 31 is carried by the rear side of the upper end of the bar 25, from which plates projects forwardly a pin 32, upon which is rotatably arranged a plate 33, the same being equal in size to the front face of the form 11. Passing transversely across the rear side of this plate 33, immediately above and below the pin 32, are bars 34, to which are fixed in any suitable manner the lower ends of spring-plates 35, the upper ends of which curve outwardly from the plate 33, and the outer ends of said spring-plates 35 are bent at right angles to the body portions thereof toward the plate 33. Short plates 36 have their rear ends passed through the outer ends of the spring-plates 35, immediately beneath the laterally-bent ends thereof, said short plates 36 normally extending immediately over the ends of the plate 33. Pins 37 are arranged in bores 38 in the edge of the plate 33, one of said pins being arranged beneath each of the plates 36, and coil-springs 39 beneath said pins force the same outwardly against the plates 36, thereby normally causing said plates 36 to remain at their outward limit of movement against the laterally-bent ends of the spring-plates 35. For ordinary basket-work there are four of these spring-plates 35 arranged upon each cross-bar 34, for the reason that there are four longitudinally-extending splints that cross the face of the form 11 while the basket is being bent and woven over said form.

Fixed to the side edges of the plate 33 and extending rearwardly therefrom are the sheet-metal wings 33^a, in the forward edge of which wings is rotatably arranged an antifriction-roller 33^b, and these wings 33^a engage directly against the sides of the form 11 when the plate 33 is swung upwardly against the front face of said form 11. Apertures 33^c are formed in the plate 33 to receive the pins 15, projecting forwardly from the bar 14.

Extending transversely between the upper portions of the side plates 29, previously mentioned, is a shaft 40, upon which is fulcrumed a plurality of bell-crank levers 41, the lower free ends of which carry antifriction-rollers 42, which normally engage against the rear sides of the upper set of spring-plates 35, and to the opposite arms of said bell-crank levers 41 are pivotally engaged the upper ends of short connecting-rods 43. Passing through vertically-alined bearings 44, secured to the front side of the bar 25, is a pair of rods 45, the outer one of which is bent laterally above the upper one of the bearings 44, and the upper portion of this particular rod is bifurcated and pivotally connected to an alternate pair of the connecting-rods 43, and the upper end of the remaining rod 45 is also bifurcated and pivotally connected to the remaining alternate pair of the connecting-rods 43.

Expansive coil-springs 46 are arranged upon the rods 45 above the lower one of the bearings 44, which coil-springs engage against pins passed through said rods 45 at points

just below the upper one of the bearings 44. Fulcrumed to brackets 47 upon the base 1 is a pair of foot-levers 48, to one of which is pivotally connected the lower end of one of the rods 45, the opposite rod 45 being pivotally connected to the opposite lever. These foot-levers 48 are transversely arranged immediately in front of the lower end of the bar 25. Fixed in any suitable manner to the front of the sheet-metal housing 30 is a handle 49, and secured to the bar 25 just above the aperture 27 and to the brace 4 are the ends of a retractile coil-spring 50, the same not being of sufficient strength to pull the bar 25 forwardly against the form 11 after it has been swung away from said form, as shown in Fig. 1.

The operation is as follows: The webs from which the basket are to be formed are, as heretofore stated, stacked up on the leaves 5 and 6, and a supply of tacks is located in the receptacles 9. When the bar 25 is swung outwardly away from the form 11, as shown in Fig. 1, and said form is turned so that the roller 20 engages in one of the recesses 18, the operator places one of the basket-webs upon the bar 22, immediately over the front face of the form 11, with the ends of said web against the guiding angle-plates 23, after which the operator engages the handle 49 and swings the bar 25 upwardly with a slight force, and in so doing the wings 33^a will engage against the portions of the basket-web that project beyond the sides of the form 11 and cause said portions to bend around onto the sides of the form 11, and at the same time that portion of the basket-web that is against the face of the form 11 will be pressed against said face by the plate 33, and in so doing the pins 15 will pass through the web, and said web will consequently be held in a fixed position while its ends are being bent and woven over the ends of the form 11. The operator now bends the first pair of the splints that are on the sides of the form 11 adjacent the face thereof downwardly onto the ends of said form and then the operator places his foot upon one of the foot-levers 48 and presses the same downwardly. In so doing the rod 45 connected to this particular foot-lever will be drawn downwardly, and with this movement the alternate pair of bell-cranks 41 that is connected to said rod 45 will be actuated, and an alternate pair of the spring-plates 35 will be forced toward the plate 33 as the antifriction-rollers 42 engage against the rear sides of said spring-plates, and this movement causes the plates 36 to pass over the ends of the plate 33 and bend an alternate pair of the longitudinally-extending splints downwardly onto the upper end of the form 11. The operator now weaves in the remaining pair of the splints from the sides of the form, after which the opposite foot-lever is pressed downwardly and the remaining pair of longitudinally-extending splints is pressed downwardly by the action of the remaining alter-

nate pair of spring-plates 35, after which said last-mentioned splints are interwoven with the last pair of splints from the sides of the form, and the strengthening-strips on the side edges of the web that is being positioned around the form are positioned beneath the spring-clips 16. When the pressure of the foot is removed from the foot-levers 48, the coil-springs 46 will cause the bell-cranks 41 to reassume their normal positions and allow the spring-plates 35 to pass again into their normal positions off from the form 11, and when one end of the web has been woven over the end of the form the operator rotates said form upon the trunnion 10 one half-turn, during which movement the plate 33 and the spring-plates 35 move with said form 11, after which the opposite end of the web is woven over the end of the form 11, as previously described, and the meeting ends of the strengthening-strips on the side edges of the web are now tacked together, after which the operator engages the handle 49, swings the bar 25 away from the form 11, and the basket, which is completed with the exception of the handle, is now removed from the form.

By the use of my improved construction basket-bodies can be very quickly formed with very little labor, as it is only necessary to weave the ends of the basket-web together over the form to complete the basket-body, and said machine is simple, inexpensive, and very efficient in use.

I claim—

1. In a basket-forming machine, a table, a form carried by said table, means whereby a basket-web is held in position against the face of said form, and means whereby a number less than the whole number of splints composing the sides and ends of said web are at one time bent against the side and ends of said form, substantially as specified.

2. In a basket-forming machine, a table, a form arranged in a vertical position at one end of said table, means whereby a basket-web is held in position against the face of said form, a bar hinged at its lower end so that its upper end swings backwardly and forwardly in front of the form, and means carried by the upper end of said bar for separately bending the sides and ends of the basket-web around the form, substantially as specified.

3. In a basket-forming machine, a table, a form arranged in a vertical position at one end of said table, means whereby a basket-

web is held in position against the face of said form, a bar hinged at its lower end so that its upper end swings backwardly and forwardly in front of the form, means carried by said bar for bending the sides of the basket-web against the sides of the form, and means whereby a certain number less than the whole number of splints of the basket-web are bent over the end of the form at one time, substantially as specified.

4. In a basket-forming machine, a table, a form rotatably arranged upon one end of said table, means whereby a basket-web is held in position against the face of said form, a swinging bar hinged at its lower end, the upper end of which operates in front of the form, and means carried by the upper end of said bar and rotatably arranged thereon, for separately bending the sides and ends of the basket-web over the form, substantially as specified.

5. In a basket-forming machine, a rotatably-arranged form, means whereby said form is retained in a vertical position, means whereby a basket-web is held in position against the face of said form, a rotatably-arranged plate held to swing upwardly against the face of said form, wings carried by the side of said plate for engaging against the sides of the form, a plurality of spring-plates carried by the rear side of the first-mentioned plate, and plates secured to the outer ends of said spring-plates, which last-mentioned plates extend over the ends of the first-mentioned plate, substantially as specified.

6. In a basket-forming machine, a rotatably-arranged form, means whereby said form is retained in a vertical position, means whereby a basket-web is held in position against the face of said form, a rotatably-arranged plate held to swing upwardly against the face of said form, wings carried by the side of said plate for engaging against the sides of the form, a plurality of spring-plates carried by the rear side of the first-mentioned plate, plates secured to the outer ends of said spring-plates, which last-mentioned plates extend over the ends of the first-mentioned plate, and means whereby pairs of said spring-plates are alternately depressed, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

ENOS L. WALKER.

Witnesses:

M. P. SMITH,

EDWARD E. LONGAN.