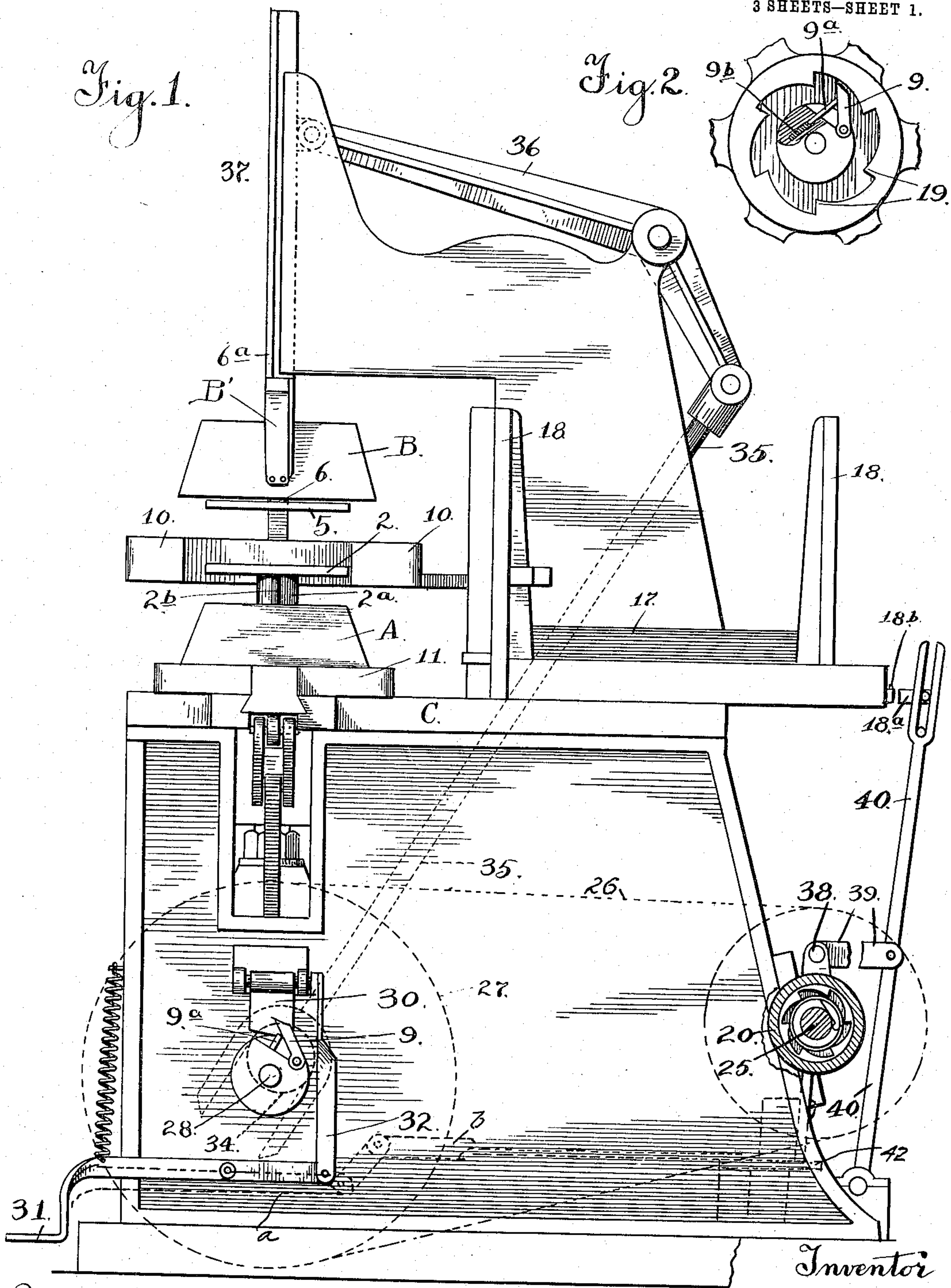


No. 867,013.

PATENTED SEPT. 24, 1907.

S. L. CASELLA.  
BASKET MAKING MACHINE.  
APPLICATION FILED DEC. 1, 1905.

3 SHEETS—SHEET 1.



Witnesses:  
Arthur L. Slee.  
B. Bourse

Second L. Casella  
By Geo. H. Strong. atty.

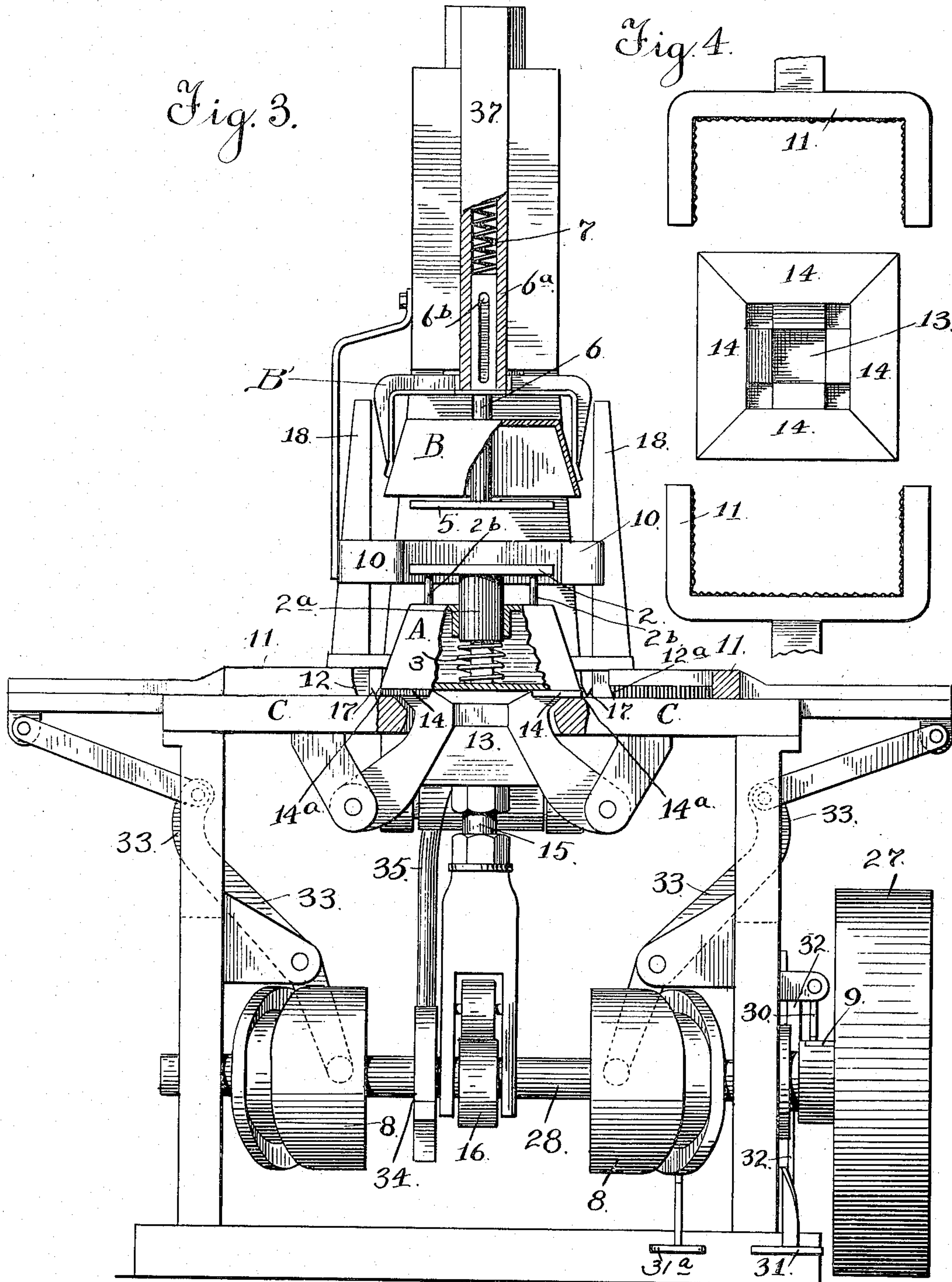
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Witnesses:

Arthur L. Slee?  
J. H. Ma

Inventor.

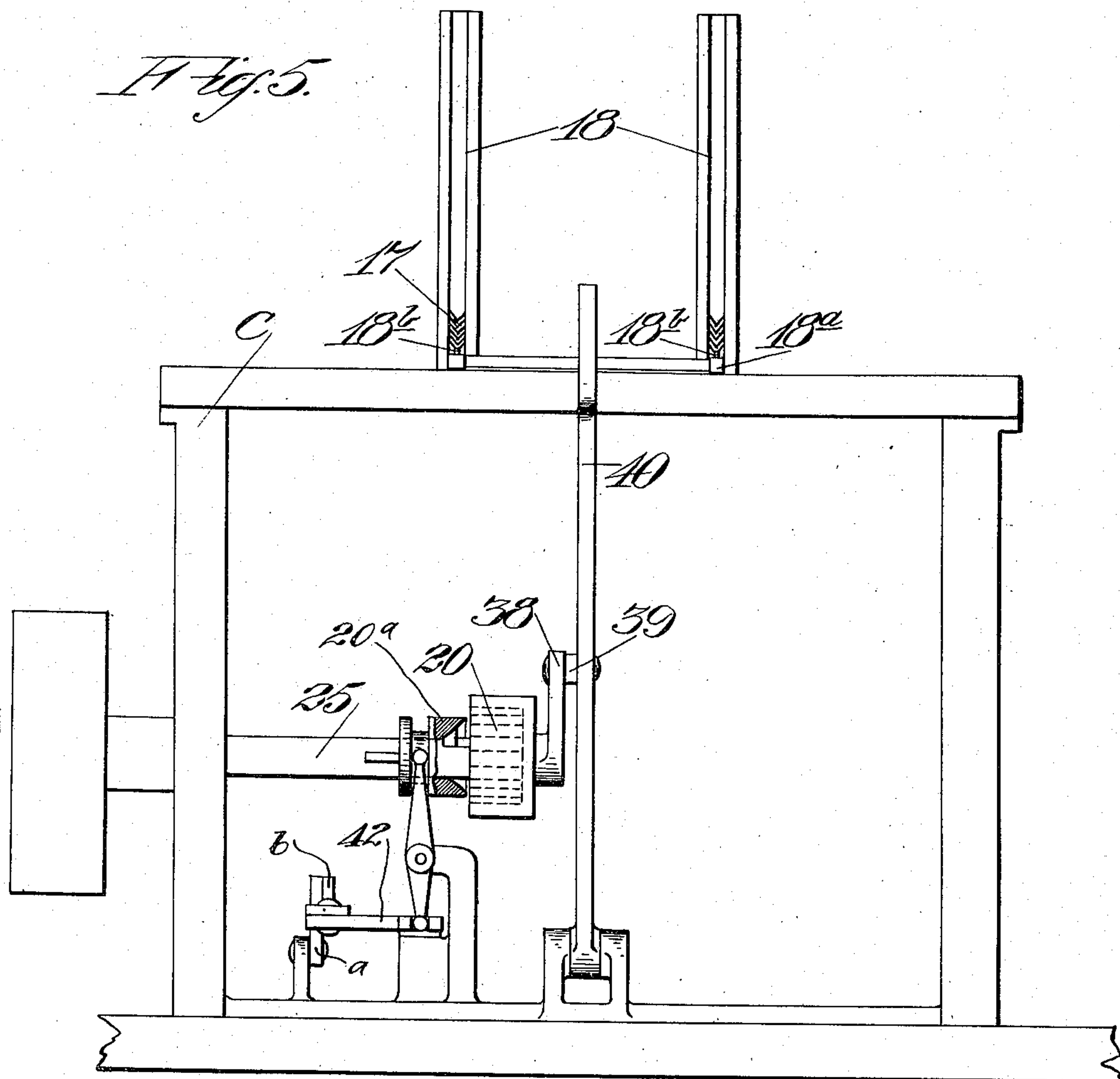
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3 SHEETS—SHEET 3.



WITNESSES

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ATTORNEY



# UNITED STATES PATENT OFFICE.

SECONDO L. CASELLA, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO W. F. BARNES COMMERCIAL CO., OF SAN FRANCISCO, CALIFORNIA, A CORPORATION OF CALIFORNIA.

## BASKET-MAKING MACHINE.

No. 867,013.

Specification of Letters Patent.

Patented Sept. 24, 1907.

Application filed December 1, 1905. Serial No. 289,828.

*To all whom it may concern:*

Be it known that SECONDO L. CASELLA, a citizen of the United States, residing at San Francisco, county of San Francisco, and State of California, has invented  
5 new and useful Improvements in Basket-Making Machines, of which the following is a specification.

My invention relates to an apparatus which is designed for the manufacture of baskets, such as are formed by crossing thin veneers transversely, bending  
10 them to form the sides, and then applying a metallic binding strip around the top edges to hold the whole together.

It consists in combination with mechanism whereby the veneer sheets are assembled, bent into shape, and  
15 the metallic rim applied around the top, and the basket completed.

It also comprises details of construction which will be more fully explained by reference to the accompanying drawings, in which—

20 Figure 1 is a side elevation of my machine. Fig. 2 is a section of the driving pulley and pawl and ratchet. Fig. 3 is a front view with section of parts. Fig. 4 is a plan view of the folding and crimping devices. Fig. 5 is a rear view of the frame showing the guides 18 the  
25 shaft 25 and the clutch-operating means, the sleeve or collar of the clutch being broken away.

The apparatus is supported upon a table or bench of any suitable character; such a bench is indicated at C. Upon this bench is fixed the mold or former A,  
30 which consists of a heavy block of metal rectangular in cross section having the part which is uppermost corresponding in size to the bottom of the proposed basket; and the lowermost portion of sufficiently larger area to provide for the divergent or flaring sides  
35 of the basket when finished. This former is suitably supported upon the table C and above it is a depressible plate 2. This plate has a stem 2<sup>a</sup> extending down into the former A, and surrounded by a spiral spring 3 which normally holds the plate above the surface of  
40 the former A, which surface corresponds to the bottom of the proposed basket. Guides 2<sup>b</sup> are slidable in vertical openings in the former to steady the movement of the plate 2.

In line above the former is a rectangular frame B of  
45 such size and shape that when depressed it will fit over the former A, and will thus act to fold the ends of veneers which have been previously placed upon the plate 2, and cause the folded sides of the veneers to substantially fit the sides of the former.

50 Beneath the hollow rectangular frame B is a plate 5 having a central stem 6 extending upwardly into a guide as at 6<sup>a</sup>. The stem is slotted longitudinally, and

a pin 6<sup>b</sup> in the slot serves to limit the movement of the stem and plate. Above the stem is a spiral spring 7 which presses upon the stem 6 and thus normally holds  
55 the plate 5 below the hollow rectangular frame B.

This portion of the apparatus is operated as follows: Two veneers already cut to size are laid upon the plate 2. They are caused to register correctly by means of fixed guides or stops 10 located one behind and the  
60 other at one side of the plate with relation to the seat of the operator so that they may be rapidly and correctly placed. By pressure upon a foot lever mechanism is thrown into gear as will be hereafter described which will depress the hollow frame B and the plate 5.  
65 The plate 5 first rests upon the veneers lying on the plate 2, thus temporarily locking them in position. The continued movement of the parts forces the plate 5 upwardly against the tension of the spring 7, and the continuation of the movement carries the hollow  
70 frame B which is carried by any suitable yokes or connections B' downwardly over the plate 2 and former A, and the projecting ends of the veneers are thus folded down over the former. The movement still continuing then depresses the plate 2, and the lower  
75 edges of the veneers are caused to slide down the former sides until they enter the grooves of the V-shaped metal binding strips which have been previously placed and bent around the bottom of the former. After the insertion of the edges of the basket into the binding  
80 strips, the latter are compressed or crimped upon the edges of the veneers, and the basket is thus finished ready for removal from the former.

The metal binding strips are usually made of sheet tin cut into narrow strips and folded into V-form.  
85 These strips 17 are placed in holders which consist of vertical guides 18 so disposed that a pile of the V-shaped strips may be placed in each one with the open sides upward. As these strips rest in the holders, one upon each side of the apparatus, they do not fit  
90 snugly, but there is a little space between the inside bottom of each V-shaped strip and the outside bottom of the next strip above, so that by means of a suitable apparatus, the strips may be forced forward from the carriers into position upon each side of the former A  
95 and in readiness to be folded so that the ends of the folded strips will overlap upon the front and back of the former, and thus form a complete binding when crimped upon the basket edges. The guides 18 in which the binding strips are placed are located behind  
100 the position of the former, and beneath the lines of the strips are channeled slides 18<sup>a</sup>, each having a small upwardly projecting pin as 18<sup>b</sup> in the bottom of the channel, and of such height that when the slides are



advanced these pins contact with the lower V-shaped edges of the two bottom strips, and thus carry them forward opposite the former as before described. When the slide is retracted these strips are left in position with the central part of the strips corresponding with the sides of the former, and the ends which project forward and back are just long enough to overlap when folded upon the front and back of the former.

The folding device consists of rectangular yokes 11 slidable in guides transversely with relation to the table and former, and the ends of these yokes striking the projecting ends of the previously placed binding strips, will fold them simultaneously about the back and front of the former and overlapping sufficiently to be subsequently crimped and interlocked.

In order to properly overlap the V-shaped binding strips, one of the yokes 11 has the lower edge inclined or beveled as shown at 12, so that as it folds the strip upon that side, the tendency is to lift the inner ends of the strip by reason of this beveled construction of the yoke. The yoke upon the opposite side has its bevel 12<sup>a</sup> inclined in the opposite direction from the bevel 12, that is the ends of the yoke which contact with the binding strip are under-cut, and when pressure is applied the tendency will be to keep the ends of this strip down upon the surface while the other one being correspondingly raised above the surface and above the strip which is held down, will thus overlap this lower strip, and when the edges of the basket are forced down after being folded over the former A, as previously described, they will enter the open grooves of the strips, and will press the end of the upper strip into the end of the lower strip so that the binding strips will then be substantially in line all the way around the basket and ready to be crimped thereon.

The crimping is effected as follows: 14 are separable plates having the edges 14<sup>a</sup> corresponding with the four sides of the former A and lying just beneath it. The binding strips inclose these edges and the edges of the basket when forced into the binding strips are also in line with these outwardly moving plates 14<sup>a</sup>. 13 is a wedge-shaped block carried by a stem 15 and actuated by a cam 16 so that when this block 13 is forced upwardly, its four sides contacting with the outwardly movable parts 14, it will be seen that these parts will be simultaneously forced outward, and their edges 14<sup>a</sup> will act to compress and crimp the binding strips upon the edges of the basket fabric, because the outer sides of the binding strips are held between the arms of the yokes 11, and against the interior of these yokes which thus form the rigid support against which the metal is crimped. The inner surfaces of these yokes may be corrugated or otherwise formed with indentations or irregularities which will indent the binding strips into the material of the basket so as to prevent the accidental separation after the basket is completed.

The mechanism may be driven in any suitable manner. I have here shown power applied to a belt pulley upon a shaft 25, and from this shaft power is transmitted by a belt 26 to a pulley 27 loosely mounted upon a shaft 28 through which power is transmitted to the various cams by which the parts heretofore described are actuated.

Any suitable form of clutch mechanism may be employed to temporarily lock the loose pulley 27 to the

shaft 28 so as to transmit motion to said shaft and the parts actuated thereby. I have here shown one form in which the hub of the pulley 27 has the internal ratchet teeth 19.

9 is a pawl extending parallel with the shaft and adapted to be moved into and out of engagement with the teeth 19. This pawl is carried upon a pin 9<sup>a</sup> which is at right angles with the pawl, and fits into a radial opening in the shaft 28, and is normally pressed outward by a spiral spring 9<sup>b</sup>. When the pin 9<sup>a</sup> is depressed, the pawl 9 is moved down so as to substantially coincide with the periphery of the shaft 28, and will be out of contact with the ratchet teeth 19 of the pulley. The pulley will thus turn freely upon the shaft when motion is transmitted to it through the belt 26 as previously described. This pawl 9 is normally held in its depressed position by an arm 30 which is actuated by a foot lever 31 and a connecting arm or link 32 so that when the operator depresses the foot lever, the action of the connected parts will release the pawl 9 and allow it to be forced outward by the spring 9<sup>b</sup> and into engagement with the teeth 19 of the ratchet within the hub of the wheel 27, and the motion of the wheel will thus be transmitted to rotate the shaft 28.

The metal binding strips having been placed with relation to the former as previously described and by a separate treadle and foot mechanism to be hereafter described, the rotation of the shaft 28 will act through cams 8 and cam-actuated levers 33 to advance the yokes 11, and fold the binding strips about the former as heretofore described. A further revolution of the shaft causes the cam 34 to act through a connecting rod 35 upon a fulcrumed tilting lever 36 which is connected with the slide 37, which slide carries the hollow frame B, and the connected parts by which the veneers are folded. The release of the foot lever 31 immediately after the pawl 9 has been engaged with the ratchet, allows it to remain in engagement until a single revolution of the shaft has been effected when the arm 30 will act to again depress the pawl and disengage it from the pulley and the shaft and cams come thereby to a stand still.

The mechanism for advancing the strips of metal 17 as previously described consists of a suitably constructed clutch 20 mounted upon the shaft 25, and upon this shaft is fixed a cam 38 which by connecting rod 39 and fulcrumed lever 40 acts upon the slide 18<sup>a</sup> by which the strips are periodically advanced.

As shown in the rear end view, Fig. 5, the arm 38 is carried by the clutch drum 20, and is strictly a crank-arm instead of a cam, although either would serve to reciprocate the lever 40 and the pusher slides 18<sup>a</sup>. The drum 20 with its internal teeth is normally stationary and the shaft 25 carrying the pawl revolves within it. A sleeve or collar 20<sup>a</sup> is slidable upon a key or feather on the shaft 25 and when moved toward the clutch case 30 it may throw the pawl outward to engage the internal ratchet teeth of the part 20 thus causing it to revolve in unison with the shaft, and force the clamping strips forward. This operation is effected by connecting the foot lever 31<sup>a</sup> with the clutch actuating sleeve 20<sup>a</sup> by any suitable connection which will disengage this sleeve when the foot lever is depressed. In the present case connection rod a—b and a bell crank lever 42 will effect this result.



Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. In a basket forming machine, a stationary former block, a vertically movable plate located above the block adapted to support the veneers of which the basket is formed, a hollow rectangular frame, mechanism by which it is vertically movable with relation to the former block to fold the projecting ends of the veneers against the sides of the block, means for advancing metal binding strips upon each side of the base of the former block, means for subsequently bending the strips to inclose the block and overlap the ends of the strips and means for depressing the movable plate and veneers to insert the edges of the veneers into the binding strips.

2. In a basket making machine, a stationary former block, a guided spring-pressed plate corresponding with the upper side of the block and normally held out of contact therewith, said plate serving to receive the veneers of which the basket is formed, adjusting guides and stops against which the ends of the veneers contact and by which they are correctly located, a vertically movable hollow frame, a slidable plate located beneath said frame and adapted to contact with the veneers to hold them in place, mechanism by which the frame is depressed to fold the ends of the veneers against the sides of the former, and mechanism by which metal binding strips are simultaneously advanced upon each side of the former, and subsequently bent to inclose its base and overlap in lines coinciding with the lower edges of the veneers.

3. In a basket forming machine, a stationary former block, a guided spring-pressed plate corresponding with the upper surface of the block, stops against which the ends of the veneers contact when placed upon the plate, a hollow frame, means by which it is moved vertically to inclose the former block and hold the veneers against its sides, an independently movable plate normally held beneath the hollow frame, means for depressing the frame and plate to hold the veneers upon the former plate, and means by which the movement of the hollow frame is continued after the arrest of its holding plate so as to fold the veneers about the former block, and mechanism by which V-shaped binding strips are simultaneously advanced upon each side of the former, bent, overlapped and interlocked in line with the lower edges of the veneers.

4. In a basket making machine, a former block having a guided depressible plate carried above its upper surface and substantially coincident therewith, means for folding metal binding strips about the base of the block, stops against which the ends of veneers contact when said veneers are laid upon the plate, a hollow frame, means by which it is depressed to hold the projecting ends of the veneers against the sides of the former block, said motion being continued after the folding to depress the veneer-carrying plate and force the edges of the basket into the binding strips.

5. In a basket-making machine, a former block, an independent guided depressible plate located above the block and adapted to support veneers, stops against which the ends of the veneers contact when in place, mechanism by which V-shaped binding strips are advanced and folded about the base of the block, a vertically movable hollow frame, means by which it is depressed to fold the veneers against the sides of the former block and to depress them so that the edges will enter the groove of the binding strip, and mechanism by which said strips are crimped upon the edges of the basket.

6. In a basket-making machine, a stationary former block, a guided depressible plate located above the block, means for advancing and holding metal binding strips about the base of the block, a hollow frame, means by

which it is moved vertically downward to fold veneer strips against the sides of the former block, an independently movable spring-pressed plate located beneath the frame so as to first contact with the veneer strips and retain them in position while the frame continues its motion to fold the strips against the sides of the former block, said continued motion acting to subsequently depress the veneer-carrying plate so that the edges of the veneers are inserted into the binding strips.

7. In a basket making machine, a stationary former block, mechanism by which V-shaped binding strips are advanced and folded about the base of the block, a depressible plate above the block upon which veneers are laid, mechanism by which the projecting ends of said veneers are folded against the sides of the block and subsequently depressed to enter the edges into the binding strips, and outwardly movable plates between which and the devices for folding the strips said strips are crimped upon the edges of the basket.

8. In a basket making machine, a stationary forming block, mechanism by which V-shaped strips are advanced upon each side of said block with their open sides upwardly, rectangular yokes or frames, means for moving them so as to fold the projecting ends of the binding strips against the remaining sides of the former block, mechanism by which veneers are folded against the side of the blocks and depressed with their edges entering the open binding strips, plates located in the plane of the binding strips and beneath the former block, and a plunger movable between said plates to force them outward whereby the binding strips are crimped upon the edges of the baskets between said plates and the surrounding yokes.

9. In a basket making machine, a stationary former block, supports located in the rear of and substantially in line with the sides of the former block, and within which V-shaped binding strips are supported with their open sides upwardly, slides and mechanism by which said slides are reciprocated so as to advance the lowermost strips and place them upon opposite sides of the former block with their ends projecting beyond said sides, rectangular yokes, mechanism by which said yokes are advanced to fold the projecting ends of the binding strips around the base of the block in readiness to receive the edges of the subsequently formed basket.

10. In a basket making machine, a stationary former block, supports located behind and substantially in line with the sides of said block, said supports being adapted to hold V-shaped binding strips with their open sides upwardly, slidable bars adapted to engage the lowermost strips and advance them simultaneously upon opposite sides of the base of the former block with their ends projecting, rectangular yokes slidable so as to enclose the former block and fold the projecting ends of the strips thereabout, one of said yokes having its inner ends undercut so as to hold the folded ends of its binding strip down upon the supporting table and the other yoke being correspondingly turned outwardly so as to raise the ends of the binding strip folded by it and cause them to overlap and coincide with the ends of the lower strip, mechanism by which veneers are folded with their edges against the sides of the former block, said mechanism acting to subsequently depress the veneers with their edges entering the open binding strips and simultaneously causing the overlapping ends of the strips to interlock.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

SECONDO L. CASELLA.

Witnesses:

S. H. NOURSE,  
HENRY P. TRICOU.