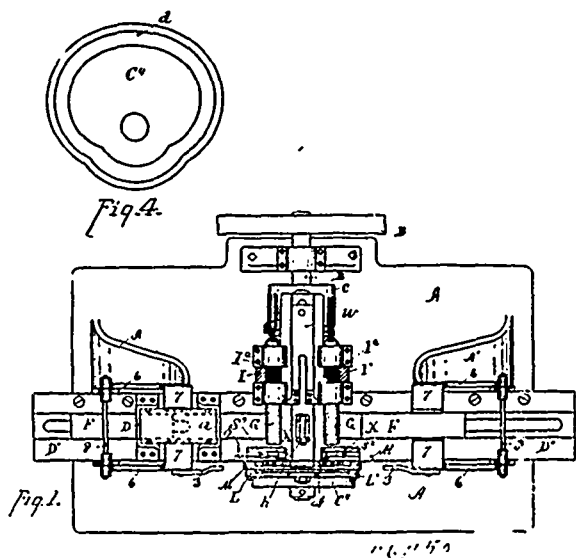


the notch, and finally to swing freely back into position to enter the next notch, and cams for imparting these movements to said bolt. 16th. The combination of pockets E, E', carrying wheel D therefor, having bolt-notches d, d', vibratory lever F, bolt F' carried thereby and movable longitudinally thereof, cam f' for imparting intermittent oscillations to said lever, and cam f for intermittently protruding said bolt into one of said notches and retracting it clear thereof. 17th. The combination of a series of pockets, constructed to be expanded and contracted, a carrying wheel to which said pockets are fastened, having bolt-notches, a driving mechanism for intermittently advancing said wheel, comprising a bolt, a cam for protruding it into engagement with said notches successively and retracting it, and a cam for swinging the bolt forward while engaged with a notch and backward while disengaged, and a mechanism for expanding the pockets, consisting of a pusher movable against the successive pockets to expand them, and connected to the mechanism which actuates said bolt so as to be moved forward to expand the pocket by the movement which retracts the bolt. 18th. In a packaging machine, the combination of a series of bag-holding pockets, a driving mechanism for intermittently advancing them the distance from one pocket to the next, and means for holding the pockets fixedly in correct position during their periods of rest, consisting of a moving part mounted to advance into direct engagement with the exterior of the successive pockets and to retract out of the way of the movement thereof, and mechanism for imparting these movements to said part between the successive advancing movements of said driving mechanism. 19th. In a packaging machine, the combination of a series of bag-holding pockets, a driving mechanism for intermittently advancing them the distance from one pocket to the next, and means for centring the pockets and holding them fixedly in correct position during their periods of rest, consisting of arms movable forward to embrace a pocket between them, and backward to clear the pocket, and a cam for imparting these movements thereto. 20th. In a packaging machine, the combination of a series of bag-holding pockets, a driving mechanism for intermittently advancing them the distance from one pocket to the next, and means for centring the pockets and holding them fixedly in correct position during their periods of rest, consisting of two opposite arms S S, connected together and movable toward a pocket to bear against opposite sides thereof, and thereby to draw it into correct position, and a cam S' for moving said arms toward and from the pockets. 21st. In a packaging machine, the combination with a series of bag-holding pockets, a plunger movable up through the pockets in succession to lift the packages out therefrom, and a delivery belt, of a delivering device for transferring the packages from said plunger onto said belt, consisting of a pusher-plate R, fixed on a pivoted lever-arm R', and a cam-movement for oscillating said arm at intervals, whereby said plate pushes each package from the top of the plunger, turns it partly around, and directs it onto the delivery belt.

**No. 46,450. Slat Weaving Machine. (Machine à tisser.)**

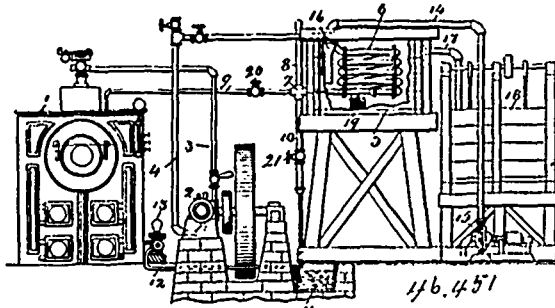


Albert Rodgers Tiffany, and Wesley Young, both of Dayton, Ohio, U.S.A., 3rd July, 1894; 6 years.

**Claim.**—1st. In a slat weaving machine, the combination of longitudinal slat feeding mechanism with divided weaving spindles which are wire threaded through the separate members thereof, substantially as specified. 2nd. In a slat weaving machine, the combination of longitudinal slat feeding mechanism with divided weaving spindles which are wire threaded through the separate members thereof, and the latterly delivery plunger W, and mechanism for operating it intermittently, substantially as specified. 3rd. In a slat weaving machine, the combination of the longitudinal

slat feeding mechanism, the latterly delivery plunger W, the divided weaving spindles which are wire threaded through the separate members thereof, and driving mechanism for operating said parts intermittently in time movements, substantially as specified. 4th. In a slat feeding machine employing twisting spindles and feeding mechanism for moving the slats intermittently forward for twisting, the slotted end clamps x x, for holding the slats during the operation of twisting, substantially as specified. 5th. In a slat weaving machine, in combination with the weaving spindles, the disc O revolved by step driving mechanism, devices mounted on said disc for actuating grips and cutters at stated intervals, substantially as specified. 6th. In a slat weaving machine, in combination with the spindles G, G', and mechanism for operating the same intermittently, the disc O, the cam q mounted thereon, and the delivery arm h, operated by said cam at stated intervals between the weaving operations, substantially as specified. 7th. In combination with a slat weaving machine, the hoppers D, D', mounted on the table D<sup>2</sup>, each side of the wire twisting spindles, and mechanism for operating the plungers F, F', alternately with each other in time movement, substantially as specified. 8th. In a slat weaving machine employing one or more feeding hoppers and mechanism for feeding the slats therefrom intermittently, the step moving disc O, the yoke jaws 7, supporting the slats and mechanism actuated by said disc for raising the jaws to suspend the slat feeding at stated intervals, substantially as specified. 9th. In a slat weaving machine, the disc O, and mechanism for revolving the same in step movements in combination with a slide P, wire gripping jaws mounted thereon, and mechanism for actuating the grippers at a stated point of the revolution of said disc, substantially as specified. 10th. In a slat weaving machine, the combination of longitudinal slat feeding devices operating intermittently, the latterly slat delivery plunger W, and driving mechanism for operating the same intermittently and between the operation of the longitudinal feeding devices, the twisting spindles and mechanism for revolving the said spindles in time movements when the slat feeding and delivering devices are at rest, substantially as specified. 11th. In a slat weaving machine, the combination of the slat feeding mechanism, the slat delivery plunger W, the wire twisting devices operated in time movements to weave the slats successively after they are delivered from the spindles, the secondary slat moving arm h, and devices for operating the same in time movements and mechanism for suspending the slat feeding at stated intervals, whereby a series of slats are woven into a web with the strands knotted at each end thereof, substantially as specified. 12th. A slat weaving machine, composed substantially of the divided spindles G, G', and wires threaded through each member thereof, the longitudinal slat feeding mechanism, the latterly slat moving plunger W, the wire gripping devices, the wire cutters, the tripping mechanism for suspending the slat feeding and the driving mechanism mounted upon the shaft B, arranged to operate the said devices consecutively in time movements whereby a web of slat is woven with knots tied in each end of the strands, substantially as specified. 13th. In combination with grip jaws 17, the levers 20, slide 22, lever 20, and cam 19, operated by the prime shaft 10, substantially as specified.

**No. 46,451. Combined Surface Condenser and Feed Water Heater. (Condensateur à surface et réchauffeur de l'eau d'alimentation combinées.)**



John B. McCurdy, Joplin, Missouri, U.S.A., 3rd July, 1894; 6 years.

**Claim.**—1st. A combined condenser and feed water heater comprising a boiler, an engine connected to the same, an exhaust for said engine, a terminal coil for said exhaust, and a cold water pipe superposed over or in proximity to the exhaust end of the coil, substantially as set forth. 2nd. A combined condenser and feed water heater, comprising a boiler, an engine connected to the same, an exhaust for said engine, a terminal coil for said exhaust, a vat for said coil, a cold water pipe within said vat having its delivery end superposed directly over the exhaust end of said coil, a valve in said exhaust end opening into said vat, a relief pipe, and pipes leading respectively to the boiler and a suitable hot well leading from the terminus of the exhaust end, substantially as set forth. 3rd. A combined condenser and feed water heater, comprising a boiler, an engine connected to the same, an exhaust for said engine, a terminal coil for said exhaust, a vat for said coil, a cold water pipe within