

consisting of a stem 2, and a rod 1 connected to the block, and to the stem to slide thereon and form part thereof, substantially as set forth. 5th. The combination of the blocks, the pivoted carriers therefor, the shouldered plates carried by the stems of the carriers, and a lifter connected to be operated by a key and having a pawl engaging with the said shoulder, substantially as set forth. 6th. The combination with the blocks, of pivoted carriers therefor, the said carriers having their pivots arranged on a curved line, the plates to which the stems of the carriers are secured having shoulders, the pivoted lifters each carrying a pawl adapted to engage with one of the said shoulders and connected to be operated by a key, substantially as set forth. 7th. The combination with each series of blocks having like characters, of a nest of superposed carriers all secured to pivoted plates having shoulders arranged at different distances from the pivot, and a lifter connected to be operated by a key, and having a pawl engaging said shoulder, substantially as set forth. 8th. The combination of the rest of carriers secured to plates having shoulders, and a lifter consisting of a pivoted arm carrying a spring bolt bearing on the edges of said plates, substantially as set forth. 9th. The combination of a series of carriers bearing blocks at their ends and arranged one above the other, a nest of plates arranged side by side upon a common pivot and having angular extensions along their edges to which the stems of the carriers are secured, and a lifter for the carriers, substantially as set forth. 10th. The combination of a series of pivoted extensible carriers bearing blocks at their ends, and a bed provided with a slot having a flaring or expanded mouth which directs the carriers into the slot as they are swung on their pivots, substantially as set forth. 11th. The combination with the radially arranged rigid carriers and lifters therefor, of distributors consisting of bars arranged on a curved line and swinging to and from the carriers, substantially as set forth. 12th. The combination of the series of rigid carriers, a series of distributing bars connected to levers, and a movable curved bar connected to move all the levers, substantially as set forth. 13th. The combination of a series of carriers, the lifter therefor, the distributors L, supported by pivoted arms 7, and arranged to swing to and from the carriers, and a movable curved bar connected with the arms of the distributing bars, substantially as set forth. 14th. The combination of the lifters, the keys, cords connected with the lifters, and the keys and a revolving drum round which each cord is extended, substantially as set forth. 15th. The combination with the keys and parts to be actuated thereby, of intermediate cords extending round a drum in position to be drawn frictionally against the drum on depressing the keys, substantially as set forth. 16th. The combination of the keys, parts to be actuated thereby, the intermediate cords, levers and drum M, substantially as set forth. 17th. The combination of the carriers, bearing blocks at their ends, the lifters therefor, the operating keys, the cords connected with the lifters and with the keys, and a revolving drum with which the cords are made to engage by moving the keys, substantially as set forth. 18th. The combination of a series of radially arranged carriers bearing blocks at their ends and pivoted on a curved line, the lifters for the carriers, a series of keys, a series of cords connecting the keys and the lifters, and a revolving drum around which each cord passes in position to be drawn frictionally against the same by moving the keys, substantially as set forth. 19th. The combination of the blocks, radially pivoted carriers and guides consisting of wires strung extending radially between the different carriers, substantially as set forth. 20th. The combination of the carriers, guide wires and tightening pins, substantially as set forth. 21st. The combination of the carriers, and the guide wires adjustably supported at their ends, substantially as set forth. 22nd. The combination of the blocks, the radially pivoted carriers, the guides consisting of wires extending radially between the carriers, and the adjustable supports for the guide wires, substantially as set forth. 23rd. The combination, of the carriers, the guide wires between which the carriers move, the adjustable pivoted stems upon which the guide wires are supported at their ends and the clamp screws for the stems, substantially as set forth. 24th. The combination, of the carriers, the guide wires, the pins 109 around which the wires pass, the tightening pins 10 to which the ends of the wires are secured and the adjustable plate or stem carrying a supporting pin for the wire, mounted between the tightening pins, substantially as set forth. 25th. The combination of the blocks, carriers therefor, slotted platform, and clamp R having a bevelled edge substantially as set forth. 26th. The combination of the blocks, the carriers therefor, a platform provided with a slot having an inclined or expanded mouth into which the blocks are delivered, a movable slide having an inclined edge arranged near the outer or mouth end of the said slot and constituting a clamp for the blocks and mechanism for moving the slide transversely across the slot, substantially as set forth. 27th. The combination of the blocks, the carriers therefor, a platform provided with a slot, and a spring catch lying across the slot, permitting the blocks to freely pass into the slot, but preventing their accidental removal, substantially as set forth. 28th. The combination, of the blocks, the carriers therefor, a platform provided with a slot, a spring catch lying across the slot, a withdrawing device for the catch, and a travelling pusher which discharges the blocks from the slot, substantially as set forth. 29th. The combination of the blocks, the carriers therefor, a platform provided with a slot, a spring catch lying across the slot, a clamp R, and means for withdrawing the catch simultaneously with the forward movement of the clamp, substantially as set forth. 30th.

The combination of the blocks, the carriers therefor, a platform provided with a slot, a spring catch lying across the slot, a mould movable over the blocks, a means for moving the mould, a bar connected with the said means which withdraws the catch from across the slot, and a clamp R having an inclined edge, substantially as set forth. 31st. The combination with the series of blocks of a series of justifiers each consisting of a movable bar having necks of successively increasing thickness, substantially as set forth. 32nd. The justifying bars each having a series of necks of different thicknesses and connecting inclined shoulders, substantially as set forth. 33rd. The combination of the justifying bars, a pusher for moving them longitudinally, a retainer for holding them out of position, and springs for moving them laterally into position, substantially as set forth. 34th. The combination of the series of justifying bars arranged side by side, a retainer situated to one side of the series of justifying bars, against which they may be brought successively, a pusher arranged adjacent to the retainer for moving each bar, and a spring for moving each bar laterally after it has been moved longitudinally by the pusher, substantially as set forth. 35th. The combination of a series of justifying bars arranged side by side, a retainer for holding the bars out of position, a pusher for moving the bars longitudinally away from the retainer, the bars 21, extending across the justifying bars and connected therewith, and springs connecting the bars 21, with some stationary part of the apparatus, substantially as set forth. 36th. The combination, of the series of justifying bars N, each provided with a pin 19, a retainer situated to one side of the series of justifying bars, and consisting of a shoulder on a stationary bar 34, against which the pins 19, are successively made to bear, a pusher arranged adjacent to the retainer and adapted to engage with the pins 19, to move the bars longitudinally, the bars 21, each connected with one of the justifying bars for moving them transversely, and the springs 23, connected with the bars 21, substantially as set forth. 37th. The combination, of a series of justifying bars arranged side by side, each having a support at its rear end, a retainer for holding the bars out of position, a pusher for releasing the bars from the retainer, and a spring or its equivalent, for moving each bar laterally after having been released by the pusher, substantially as set forth. 38th. The combination of a justifying bar, provided at its end with a socket, a rod having one end entering the said socket, and the other end provided with a stud supported in a bar, a spring surrounding said rod between the end of the justifying bar and said stud, a retainer for the bar holding it out of position, a pusher for moving the bar away from the retainer, and a spring for moving the bar laterally, substantially as set forth. 39th. The combination, of the justifying bars, a pusher for moving them longitudinally, a retainer for holding them out of position, springs for moving them laterally into position, and the alternately contractible and expansible springs 28, substantially as and for the purpose set forth. 40th. The combination, of the movable justifying bars N, of a retainer for holding them out of position, a pusher for moving each bar, when brought opposite it, away from the retainer, and a driver for moving the bars across the line of blocks, substantially as set forth. 41st. The combination of the series of independent parallel justifying bars, retainer, pusher, driver and yielding spring bearings between the driver and bars, substantially as set forth. 42nd. The combination of a series of justifying bars, a retainer for holding them out of position a pusher for moving them from the retainer, a series of rods 27, enter-sockets in the ends of the justifying bar, a driving bar 31, with which the said rods are connected, and springs arranged between the ends of the justifying bars and the said driving bar, substantially as set forth. 43rd. The combination of a series of justifying bars, a retainer for holding them out of position, a pusher for moving the bars away from the retainer, the rods 21 entering sockets in the ends of the justifying bars, and provided at their ends with studs 29, a slotted driving bar 31 into the slot of which said studs enter, the springs mounted between the bar 31 and the justifying bars and the justifying bars and operative connections between the bar 31 and some moving part of the machine, substantially as set forth. 44th. The combination of the movable justifying bars, pusher and key connected with the pusher, substantially as set forth. 45th. The combination with the slotted platform B and blocks and carriers therefor of the movable pusher W, substantially as set forth. 46th. The combination with the slotted platform, of the blocks, the carriers therefor arranged to carry the blocks into the slot of the platform, a movable block normally arranged at the rear or inner end of the slot and movable connections for moving the pusher to force the blocks out from the slot, substantially as set forth. 47th. The combination with the slotted platform B, of the movable blocks, the carriers therefor arranged to carry the blocks into the slot of the platform, a movable pusher normally lying at the rear or inner end of the slot and lever connections between the said movable block, and a cam on an intermittingly driven shaft of the machine, for moving the pusher to force the blocks out of the slot, substantially as set forth. 48th. The mould consisting of two sections side by side combined with devices for moving it into and out of position and for clamping the sections together, substantially as set forth. 49th. The combination of the movable two part mould and the wedge 94, substantially as set forth. 50th. The combination of the slotted platform and mould pivoted to the platform to swing to and from the slot, substantially as set forth. 51st. The combination of the slotted platform, the shaft supported in bearings and carrying the mould, and appliances for rocking said shaft, substantially as set