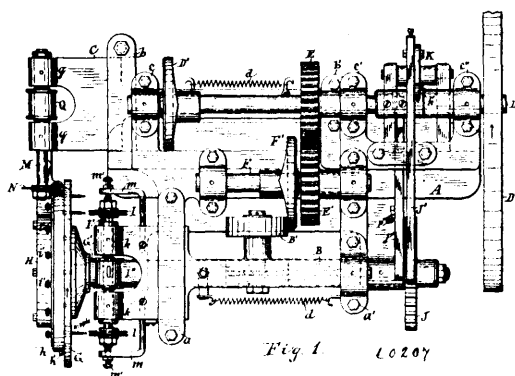


movable bar in a guide-way, a cam-wheel on the driving shaft to move the bar, and an arm carried by the said second bar and extending on the opposite sides of the disc, as and for the purpose described. 6th. In a nipple finishing machine, the combination, of a disc provided with a circular series of apertures to hold the nipples, a shaft for the disc to turn in bearings, a ratchet-wheel on the shaft, a pawl engaging the ratchet-wheel, a cam on the driving shaft to operate the pawl, a detent for the ratchet-wheel, a longitudinally movable bar, a guide-way for the bar, the driving shaft, a cam-wheel on the driving shaft to move the bar, a spindle adapted to be reciprocated in bearings, a bar connecting the spindle with the said longitudinally movable bar, means for adjusting the spindle relatively to the said movable bar, a chuck on the end of the spindle to hold the tool to operate upon the nipples, and suitable means for driving the spindle, substantially as described and shown. 7th. In a nipple finishing machine, the combination of a disc provided with a concentric series of apertures, a shaft for the disc, a ratchet-wheel on the shaft, a pawl engaging the ratchet-wheel, a cam carried by the driving shaft for operating the pawl, means to hold the nipple in the disc while it is operated upon, a longitudinally movable bar, a guide-way for the bar, the driving shaft, a cam-wheel on the driving shaft to move the bar in one direction, a spring to retract the bar, a spindle reciprocated in bearings by the said bar, a chuck on the end of the spindle to hold a tool to operate upon the nipples, a pulley on the spindle for rotating the same, a longitudinally movable rod held parallel with the axis of the disc in a bearing, and a connecting bar between the latter and the longitudinally movable bar, as and for the purpose described. 8th. In a nipple finishing machine, the combination with the frame and its projections and bearings, a driving shaft carrying a driving pulley and a pair of cam-wheels, a guide-way on the frame, a pair of longitudinal y movable bars in the guide-way to be operated by said cam-wheels, a disc provided with a concentric series of apertures for holding the nipples, a ratchet-wheel on the shaft of the disc, a pawl and detent for the ratchet-wheel, a cam on a sleeve on the driving shaft to operate the pawl and detent, a bar on one side of the disc provided with screws to bear upon the heads of the nipples when they are operated upon, a pair of spindles having pulleys thereon and chucks to hold tools for operating on the nipples, said spindles being parallel with each other on the opposite side of the disc from the bar carrying the screws, an arm connected to the said spindles and adjustably mounted on one of the sliding bars, and a rod connected to the said arm and movable therewith to remove the nipples from the disc after they have been operated upon, as set forth. 9th. In a nipple finishing machine, the combination with the frame and its projections and bearings, a driving shaft carrying a driving pulley and a pair of cam-wheels, a guide-way on the frame, a pair of longitudinally movable bars in the guide-way to be operated by said cam-wheels, a disc provided with a concentric series of apertures for holding the nipples, a ratchet-wheel on the shaft of the disc, a pawl and detent for the ratchet-wheel, a cam on the sleeve on the driving shaft to operate the pawl and detent, a bar on one side of the disc provided with screws to bear upon the heads of the nipples when they are operated upon, a pair of spindles having pulleys thereon and chucks to hold tools for operating on the nipples, said spindles being parallel with each other and on the opposite side of the disc from the bar carrying the screws, and unsuitable means for removing the nipples from the disc successively after they have been operated upon, substantially as shown and described.

rotate the disc intermittently, a reciprocating bar carrying a spindle on one end and extending parallel with a face of the disc, a pair of cutters on each end of the spindle to operate upon two articles, and means to drive the spindle, as set forth. 2nd. In a slabbing machine for nipples for bicycle wheels, the combination of a disc provided with chamber to hold the nipples, means to rotate the disc intermittently, a longitudinally reciprocating bar carrying a rotatable spindle extending parallel with the face of the disc, two pairs of cutters on the spindle to operate simultaneously on a pair of nipples, and suitable means to operate the bar and drive the spindle, as set forth. 3rd. In a slotting and slabbing machine for nipples, the combination of a disc provided with chambers to hold the nipples, means to rotate the disc intermittently, a longitudinally reciprocating bar carrying a rotatable spindle extending parallel with a face of the disc, two pairs of cutters on the spindle to slab simultaneously a pair of nipples, suitable means to operate the bar, a second reciprocating bar carrying a spindle on the opposite side of the disc, a cutter on the latter spindle to slot the heads of the nipples, and means to operate the spindles, as set forth. 4th. In a slotting and slabbing machine for nipples, the combination of a disc provided with chambers to the hold the nipples, means to rotate the disc intermittently, a longitudinally reciprocating bar carrying a rotatable spindle extending parallel with a face of the disc, two pairs of cutters, on the spindle to slab simultaneously a pair of nipples, suitable means to operate the bar, a second reciprocating bar carrying a spindle on the opposite side of the disc, a cutter on the latter spindle to slot the heads of the nipples, a tension plate to retain the nipples in the disc while they are being operated upon, and means to drive the spindles, as set forth. 5th. In a slotting and slabbing machine for nipples, the combination of a disc provided with chambers to hold the nipples, means to rotate the disc intermittently, a longitudinally reciprocating bar carrying a rotatable spindle extending parallel with a face of the disc, two pairs of cutters on the spindle to slab simultaneously a pair of nipples, suitable means to operate the bar, a second reciprocating bar carrying a spindle on the opposite side of the disc, a cutter on the latter spindle to slot the heads of the nipples, a tension plate to retain the nipples in position in the disc while they are slabbled, means to drive the spindles, and a pusher connected with one of the reciprocating bars to remove the nipples from the disc, as set forth. 6th. In a slotting and slabbing machine for nipples, the combination of a disc provided with chambers to hold the nipples, means to rotate the disc intermittently, a longitudinally reciprocating bar carrying a rotatable spindle extending parallel with the face of the disc, two pairs of cutters on the spindle to slab simultaneously a pair of nipples, suitable means to operate the bar, a second reciprocating bar carrying a spindle on the opposite side of the disc, a cutter on the latter spindle to slot the heads of the nipples, a curved tension plate to retain the nipples in position in the disc while they are slabbled, means to drive the spindles, and a pusher to remove the nipples from the disc, consisting of a longitudinally movable rod in a guideway, said rod being parallel with the shaft of the disc and movable in the path of the nipples, and a connecting bar between the said rod and one of the said reciprocating bars, as set forth. 7th. In a slabbing machine for nipples, the combination with the frame, of a disc provided with a circular series of apertures to hold the nipples, a shaft for the disc carrying a ratchet-wheel, a driving-shaft, a shaft carrying a cam-wheel parallel with the driving-shaft and geared to the latter, a cam on the driving-shaft, a pawl to rotate the ratchet-wheel operated by the cam on the driving-shaft, a longitudinally movable bar operated by the said cam-wheel, a spindle carried by the bar, a pair of cutters on the spindle, and a pulley on the spindle, substantially as described and shown. 8th. In a slabbing machine for nipples, the combination with the frame, of a disc provided with a circular series of apertures to hold the nipples, a shaft for the disc carrying a ratchet-wheel, a driving-shaft, a shaft carrying a cam-wheel parallel with the driving-shaft and geared to the latter, a cam on the driving-shaft, a pawl to rotate the ratchet-wheel operated by the cam on the driving-shaft, a longitudinally movable bar operated by the said cam-wheel, a spindle carried by the bar parallel with a face of the disc, a pair of separated cutters on each end of the spindle, and a pulley on the spindle between the bearings, substantially as described and shown. 9th. In a slabbing machine for nipples, the combination with the frame, of a disc provided with a circular series of apertures to hold the nipples, a shaft for the disc carrying a ratchet-wheel, a driving-shaft, a shaft carrying a cam-wheel parallel with the driving-shaft and geared to the latter, a cam on the driving-shaft, a pawl to rotate the ratchet-wheel, a bell-crank lever having an arm for engagement with the cam, and an arm connected with a spring, the first-mentioned arm being connected with the said pawl, a longitudinally movable bar operated by the said cam-wheel, a spindle carried by the bar, and a pair of cutters on the spindle, substantially as and for the purpose described. 10th. In a slabbing machine for nipples, the combination with the frame, of a disc provided with a circular series of apertures to hold the nipples, a shaft for the disc carrying a ratchet-wheel, a driving-shaft, a shaft carrying a cam-wheel parallel with the driving-shaft and geared to the latter, a cam on the driving-shaft, a pawl to rotate the ratchet-wheel, a bell-crank lever having an arm for engagement with the cam and an arm connected with a spring, the first-mentioned arm being connected with the said pawl, a detent for the ratchet-wheel, a cam on the driving-shaft to operate the detent, a longitudinally movable bar operated by the said cam-

No. 60,207. Slotting and Slabbing Machine.

(Machine à mortaise et rotation.)



The Morse-Keefer Cycle Supply Company, assignee of Arthur Jacob Morse, all of Salisbury, Connecticut, U.S.A., 3rd June, 1898; 6 years (Filed 9th March, 1898.)

Claim.—1st. In a slabbing machine, the combination of a disc provided with chambers to hold the articles to be slabbled, means to