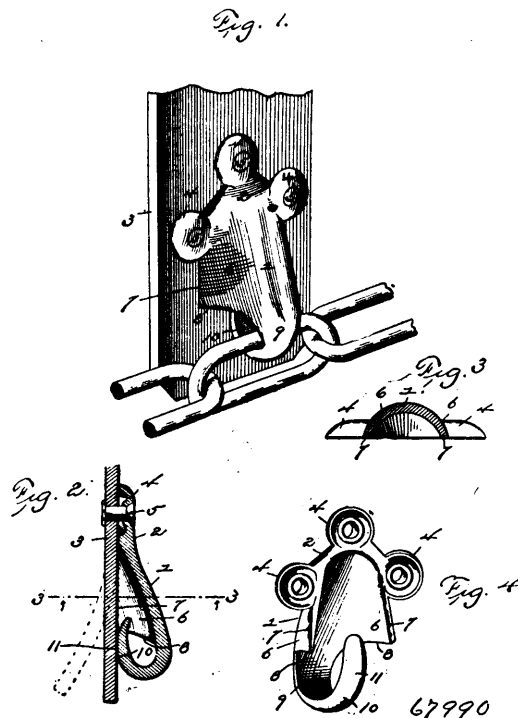


ination substantially as described, of the horizontally adjustable casing, the melting pot and nozzle pivotally supported on said casing to reciprocate vertically in movable bearings, and centering or adjusting devices engaging the nozzle as it is vibrated to position and operating thereon to shift the bearing, to compensate for expansion and contraction and insure the seating of the nozzle. 82nd. In a type casting mechanism the combination substantially as described of the melting pot pivotally supported on movable bearings, the fixed conical nozzle seat, and the mechanism for oscillating the melting pot on its pivots, said mechanism being connected to the melting pot at a point remote from its pivots and comprising the link, bell crank lever and cam actuated rod provided with a compression device. 83rd. In a type casting mechanism the combination substantially as described of the mould, a reciprocating melting and injecting apparatus composed of a pivotally supported melting pot, pump and injecting nozzle, a nozzle seat, and mechanism operating the piston of the pump provided with a driving and driven members or levers, a connecting pin borne by a slide, actuating mechanism provided with a compression device for reciprocating said slide, to alternately connect and disconnect the driving and driven members, and a controllable stop for arresting the movement of the slide when it is desired to suspend the action of the pump. 84th. In a type casting mechanism, the combination, substantially as described, for controlling the action of the pump, of a pump lock located in the line of communication between the driving shaft and the piston, and comprising the following elements, to wit:—a driving and a driven member provided with coincident apertures, a slide carrying a pin and reciprocating in a direction to enter said apertures, to lock the driving and driven members and cause them to move in unison, actuating devices provided with a yielding member for reciprocating the slide, and a controllable pin arranged to be projected into the path of and arrest the movement of the slide and thus prevent the locking pin from connecting the driving and driven members. 85th. The combination to form a pump lock such as described, of the driving and driven levers arranged in juxtaposition and provided with coincident apertures, the pin riding in the driven lever and adapted to enter the driving lever, to lock the two levers together and cause them to move in unison, the slide supporting the stem of the locking pin, the compression link and actuating devices for reciprocating the slide, and the stop pin arranged in position to be projected into the path of the slide, to arrest the latter and prevent the engagement of the locking pin with the driving lever, said stop pin being provided with a piston and cylinder. 86th. In a metal injecting apparatus for type casting and similar machines, the combination with the melting pot provided with an arm or channel for the metal and terminating at its outer end in a nozzle, of the detachable pump cylinder located within the melting pot and provided with an arm connected to the wall of the pot and containing a passage communicating with that in the arm of the pot. 87th. The combination with the pump actuating mechanism, including the driving and driven members, and the slide carrying the locking pin, of a plurality of independent stop pins, each arranged to engage said slide and thereby suspend the action of the pump. 88th. In a machine for forming and setting up justified lines of types, the combination, substantially as described, of the mould, the reciprocating type carrier receiving the type from the mould, the line channel into which successive type are delivered by the type carrier, said line channel being provided with type sustaining devices, a vertically movable rule or blade, and a laterally movable wall or head, a galley opposite the said movable wall or head, and a line carrier operating longitudinally of the line channel to transfer the completed line opposite the movable head or wall in position to be transferred by the latter to the galley. 89th. In a machine for forming and setting up justified lines of types, the combination, substantially as described, of the mould with its adjustable mould blade and movable section, the type carrier reciprocating in the plane of the movable section of the mould and furnished with a type receiving channel and sustaining dog, a line channel, and an ejector operating on the type in the carrier to transfer it into the line channel. 90th. In a machine for producing and setting up justified lines of type, the combination of the die case, the mould provided with a movable front section and an opposite adjustable and reciprocating mould blade, the latter operating to adjust the width of the mould when casting and to discharge the type when completed, the type carrier reciprocating across the front of the mould in line with the movable front section thereof, and provided with a transverse type channel containing a yielding type support, a line channel furnished with type supports, and an ejector arranged opposite the entering end of the line channel and reciprocating through the type carrier to discharge the type therefrom and transfer it to the line channel. 91st. In a machine for forming and setting up lines of types, the combination of the mould provided with a movable wall or section and an opposite mould blade adjustable to vary the width of the mould and reciprocating to eject the finished type from the mould, a type carrier reciprocating in the same path as the movable section of the mould and provided with a type channel, a line channel, and a pusher or ejector operating through the channel of the type carrier to force the type into the line channel. 92nd. In a strip feeding mechanism such as described, the combination with the pin wheels and actuating devices therefor controlled by a reciprocating member or lever, of opposing surfaces between which the strip is conducted, one of said surfaces being movable to clamp the strip and receiving motion im-

mediately from the reciprocating member or lever which actuates the pin wheels. 93rd. In a strip feeding mechanism such as described, the combination with the pin wheels and actuating devices therefor receiving motion from a vibrating lever, of the fixed and movable clamping members or surfaces between which the strip is fed by the pin wheels, a rock shaft connected to the feed controlling lever and provided with devices, including a yielding connection, for reciprocating the movable member of the clamp. 94th. In a strip feeding mechanism such as described the combination with the pin wheels and actuating devices therefor receiving motion from a vibrating lever, of the fixed and movable clamping members or surfaces between which the strip is fed by the pin wheels, a rock shaft connected to the feed controlling lever and provided with devices, including a yielding connection, for reciprocating the movable member of the clamp. 95th. The combination in a strip feeding mechanism such as described of the two pin wheels, the strip supporting bar, actuating devices, including a driving lever and a yielding connection, for the pin wheels, the movable clamping bar, and the rock shaft connected to the driving lever of the pin wheels and transmitting motion to the clamping bar through connections including a yielding member. 96th. The combination substantially as described of the strip feeding devices, the strip clamping devices including the supporting bar furnished with a series of ports and the movable clamping bar furnished with a corresponding series of ports communicating with a pressure supply, a pressure controlling valve, and actuating devices for the feeding and clamping mechanism, and the valve, the same including the driving lever connected to the feed actuating devices, and a connection intermediate the latter and the valve. 97th. The combination substantially as described of the pin wheels and their actuating devices, the cross bar located between the pin wheels and provided with a series of ports, the reciprocating clamping bar or cross head provided with a feeding channel and a series of ports, the valve governing the admission of fluid to the feeding channel, the driving lever connected through a yielding link to the pin wheel actuating devices, and a rock shaft receiving motion from said driving lever and provided with cams for operating the clamping bar, and an arm for operating the valve. 98th. The combination substantially as described of the stationary cross bar with its series of ports, the reciprocating cross head furnished with a corresponding series of ports and a supply chamber or passage, the valve carried by said cross head, the rock shaft provided with an arm for engaging the valve and two cams, and the bar engaged by said cams and connected to the cross head by bolts and springs.

#### No. 67,990. Back Band Hook. (*Crochet pour avaloirs.*)



Seth Ward. Princeton, Indiana, U.S.A., 5th July, 1900; 6 years.  
(Filed 21st June, 1900.)

*Claim.*—A back band hook comprising a continuous concavo-convex body adapted to have its open side or cavity next to the back band, and provided with approximately parallel side flanges having straight edges resting flat against the neck band and lying in the plane of the attaching portion of the body, said body being