O. ASHTON.
PEGGING MACHINE.
APPLICATION FILED AUG. 19, 1898.

920,242. **Patented May 4, 1909.**

2 SHEETS—SHEET 1.

Fig. 1.

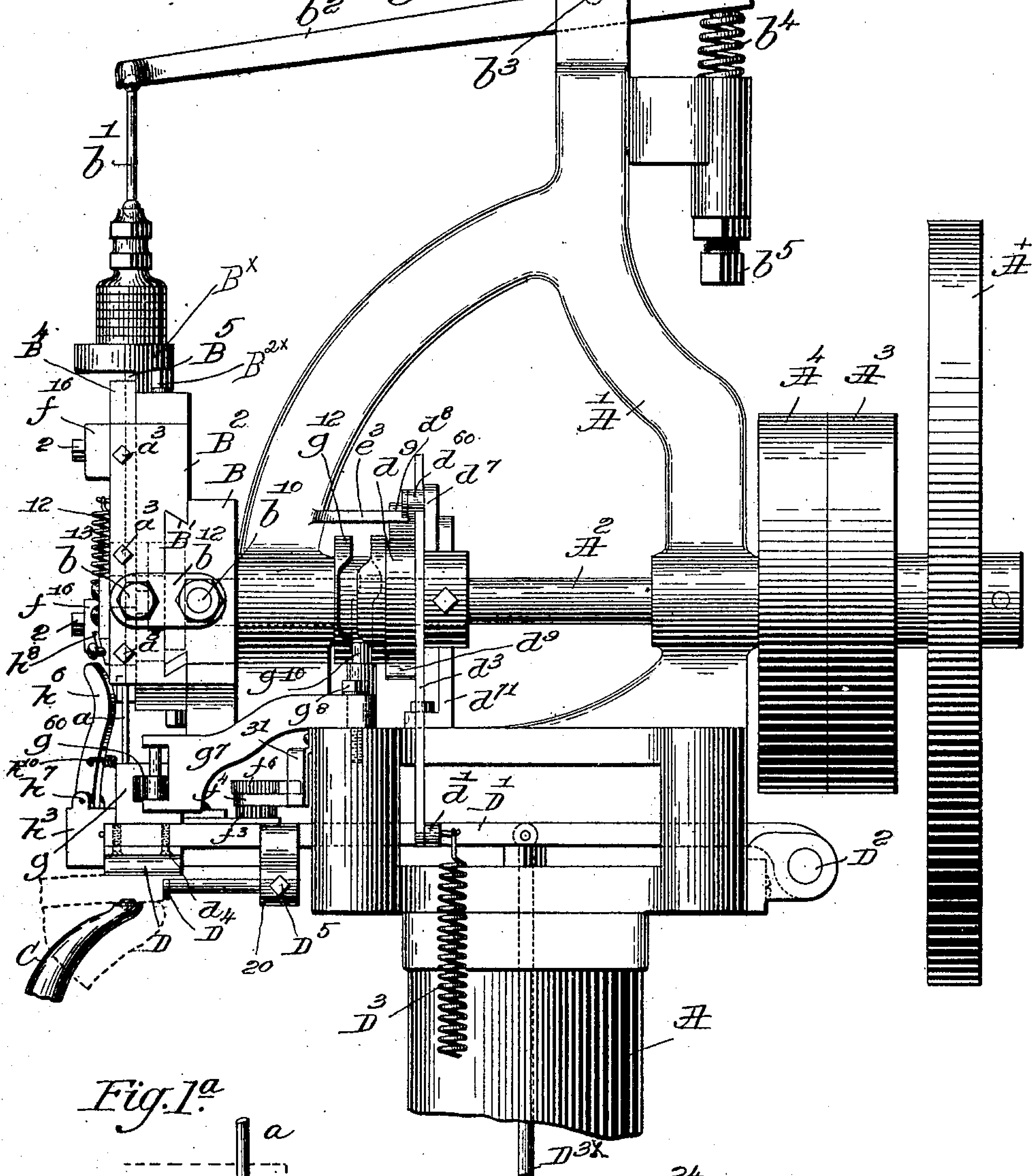
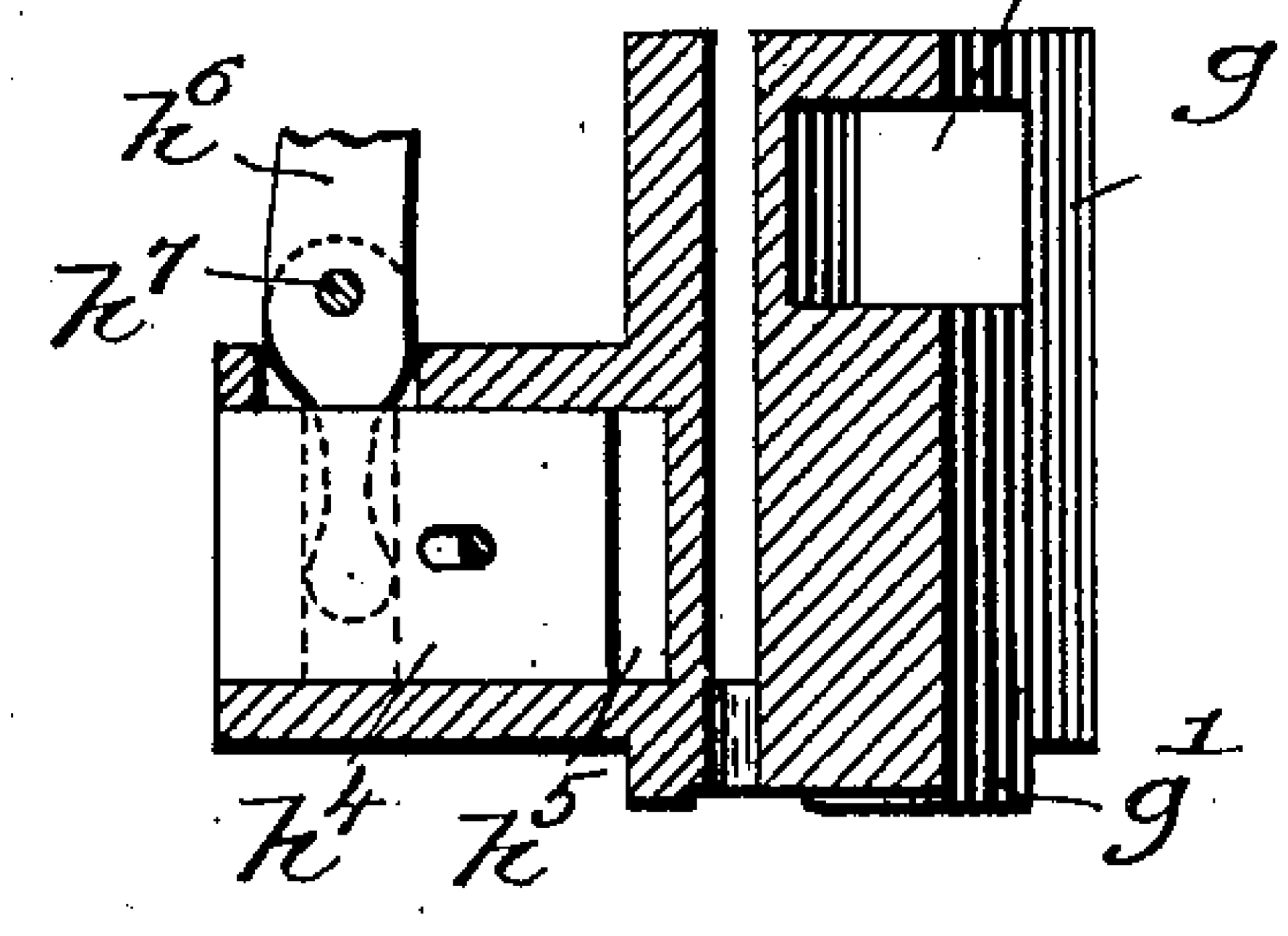


Fig. 1a.

Fig. 2.



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2 SHEETS—SHEET 2.

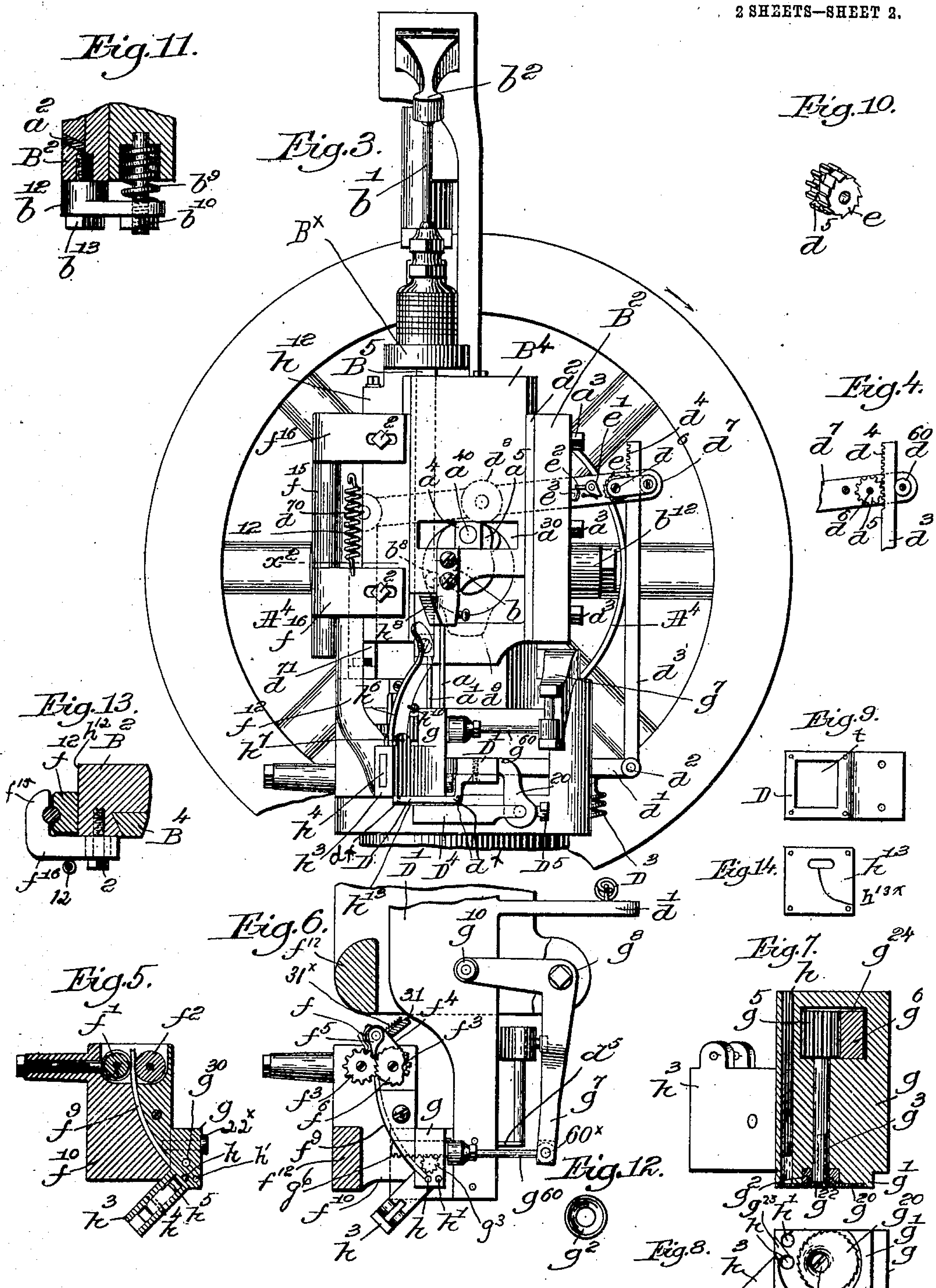
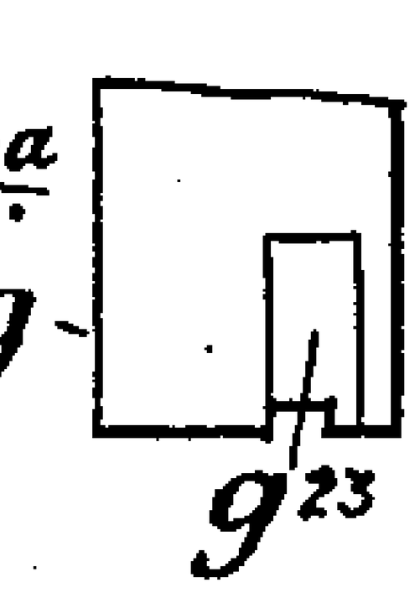


Fig.8a.



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UNITED STATES PATENT OFFICE.

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PEGGING-MACHINE.

No. 920,242. Specification of Letters Patent. Patented May 4, 1909.

Application filed August 19, 1898. Serial No. 688,993.

To all whom it may concern:

Be it known that I, ORRELL ASHTON, of Lawrence, county of Essex, State of Massachusetts, have invented an Improvement in Pegging-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

Heretofore it has been customary in pegging machines using ribbon peg wood of a width corresponding to the length of the peg desired, to drive each peg into the sole or stock until the head ends of the pegs lie flush with the outer sole or stock, the points of such pegs protruding more or less through the inner sole according to the thickness of the sole or stock, and thereafter the points of the pegs have been cut off either by apparatus located in the horn, or by a hand-operated float. It is difficult to properly cut off the points of the pegs exposed in the inner face of the inner sole, and therefore, to leave a smooth surface at the inner sole next the foot, it has always been necessary to add a sock sole or lining, it covering the cut-off points of the pegs left in the inner sole.

Attempts have been made to provide pegging machines with a plurality of pegging strips of different widths, one for the thickest and the other for the thinnest stock used in the shoe being made, but with such plan some of the pegs will protrude through the inner sole, for the stock in the soles of a lot of shoes may vary very considerably both in hardness and thickness.

I have aimed to produce a pegging machine in which with but one width of peg ribbon or strip I may unite the sole throughout in its varying thickness, and yet not drive the points of the pegs through the inner sole to any objectionable extent. In doing this, I employ a peg ribbon or strip which has a width sufficient to furnish the longest peg required for the sole or stock used in the shoe to be made, and the pegs made from said ribbon are driven one at a time into the stock, the points of the pegs terminating at the face of the inner sole and meeting preferably a substantially unyielding stock support, the upper or head end of each peg after it has been driven being left standing above the outer face of the outer sole or stock for a greater or less distance according to the difference between the thickness of the stock and the length of the peg at the point where the peg is driven. I have provided means to cut off that part of the peg, which when the peg is driven is left standing at the face of the stock, said means removing the surplus length of peg not required for the stock at the point where the peg is driven. Preferably also this means moves in a plane at right angles to the length of the peg so as to cut the peg off square and flush with the surface of the stock. In the construction hereinafter specifically described the cutting means acts with a draw cut rather than with a direct thrust, that is, its cutting edge moves obliquely across the peg, and it preferably comprises a circular saw eccentrically mounted. With such a construction a clean smooth cut is made in removing the surplus from the end of the peg and there is no danger of breaking or splitting the peg.

Another feature of my invention relates to the means for making a hole in the stock to receive the peg. In order that the hole may extend completely through the stock, the point of the awl, according to this feature of the invention, is arranged to pass below the lower surface of the stock and then is retracted so that during the feed it will be above the lower surface of the stock. In the construction herein specifically described, the awl passes below and wholly outside of the imperforate supporting surface of the stock support which is, therefore, of comparatively small diameter. Hence the awl will always clear the stock support during the feeding movement. Obviously, this feature of the invention is applicable not only to pegging machines, but also to other machines for inserting fastenings.

Other features of my invention will be hereinafter described and set forth in the claims at the end of this specification.

Figure 1 in side elevation represents a sufficient portion of a pegging machine with my improvements added to enable my invention to be understood. Fig. 1ª is a detail showing, in dotted lines, the position of the awl with relation to the tip of the horn when it has penetrated the stock, and by full lines its position at the time the feeding of the stock commences. Fig. 2 is a detail in

section, showing part of the throat-piece, and a peg ribbon cutter which cuts the peg ribbon into separate pegs. Fig. 3 is a partial front elevation of the machine shown in Fig. 1. Fig. 4 is a detail showing the end of the lifting lever with its locking device engaging the lifting rod. Fig. 5 is a detail showing part of the block having the guideway to receive and guide the peg ribbon, and the feeding means for said peg ribbon. Fig. 6 is a detail showing part of the lever which carries the presser foot together with the peg ribbon feeding mechanism, and the actuating means for the peg severing device. Fig. 7 is an enlarged detail of the throat piece containing the awl and driver passages, and the peg severing device. Fig. 8 is an underside view of the parts shown in Fig. 7. Fig. 8^a is a detail showing the throat-piece with its slot g^{23}. Fig. 9 is an underside view of the presser foot D, the guard-plate being removed. Fig. 10 shows the locking device and its connected ratchet detached. Fig. 11 is a plan view, partly in section, showing the means for moving in one direction the slide B^2 through which the feed of the work is effected. Fig. 12 shows the dished washer g^2. Fig. 13 shows a partial section below the dotted line x^2, Fig. 3. Fig. 14 is an underside view of the guard plate h^{13} detached.

The column A has in practice at its lower end a suitable base or foot to rest on the floor, and at its upper end said column supports a head A′ of suitable shape to contain the operative parts of the machine.

The main shaft A^2, supported in bearings in the head A′ of the machine, carries a fixed fly wheel $A^\times$, a fast pulley A^3 and a loose pulley A^4. The latter, which may be constantly driven by a belt, may be connected and disconnected in any usual or suitable manner to the fast pulley A^3 in order to start and stop the machine, but any other usual or desired construction for this purpose may be employed.

The head A′ has secured to it at its front end a guide block B shown as having a dovetailed projection B′ horizontally arranged, said projection receiving upon it and guiding a slide B^2 having a vertical way, see Fig. 3, said way receiving and guiding an awl-carrying slide B^4 provided with an awl a to pierce the work resting on the top of a horn C, it in practice being a rigid or unyielding horn, capable however of being rotated, as usual, with the work, in order that the pegs may be driven entirely about the sole. The shank of the horn may be sustained in any suitable bearing in which it may rotate. The tip of the horn in practice is of such small diameter that it may readily reach into the toe of the shoe and that the point of the awl when it penetrates the work will pass below the tip of the horn at one side thereof. The awl-carrying slide is provided at its rear side, as shown by dotted lines, with a groove which receives a driver bar B^5 provided with a driver a'. The awl-carrying slide is guided at one side by a gib a^2 which may be adjusted as required by suitable screws a^3 in the slide B^2. The awl slide has a horizontal slot a^{30} which is entered by a square block a^4 mounted loosely on a stud a^{40} extended from a cam a^5 fast at the front end of the main shaft A^2, so that as said shaft is rotated the block traveling in said slot actuates the awl slide and causes the awl to penetrate the stock, it remaining therein long enough to feed the stock, said awl rising through the stock just before and during the feeding movement and completing its rise therefrom after said feeding movement. As the block a^4 acts to raise the awl slide it meets a projection b, see dotted lines Fig. 3, extended from the driver bar, and lifts said bar, the latter through the strut b' erected upon its upper end turning or lifting the outer end of a lever b^2, seated on a rib at b^3, turning said lever to compress the driver-bar actuating spring b^4, made adjustable by a suitable adjusting screw b^5, and, as said block a^4 passes from under said projection b, said spring b^4 immediately acts to depress the driver to meet a peg in the driver passage under it, and drive said peg into the stock. The block $B^\times$ secured to the upper end of the slide B^2 by a set screw $B^{2\times}$ serves to arrest the driver in its down-stroke so that the driver always descends to exactly the same point, and inasmuch as the horn occupies a fixed position, it will be understood that when the thickness of the stock is equal to the length of the peg, the head of the peg will be driven flush with the outer face of the stock or sole, but when the stock is of less thickness than the length of the peg, more or less of the head part of the peg will be left above the surface of the stock or sole as surplus peg-wood to be thereafter cut off. The slide B^2 derives its horizontal movement while the awl is in the stock, to cause said awl to feed the stock, from or through a cam a^5 of suitable shape acting against a roller b^8, see dotted lines Fig. 3, located on a pin in the slide B^2, immediately behind the driver bar, the said slide B^2 being moved in the opposite direction, after the feeding movement, by a suitable spring b^9 surrounding a stud b^{10} extended through an ear b^{12} secured to said slide B^2 by means of a set screw b^{13}.

The awl-carrying slide, its awl, and the driver bar, and driver, are of usual construction, and need not therefore be herein further described, and instead of the particular slides and bars shown for actuating the awl and driver, I may employ any other usual or equivalent devices.

The rigid or unyielding horn receives upon

it the shoe or stock to be pegged, as seen by dotted lines in Fig. 1, where part of a shoe is represented, and the outer face of the outer sole of said shoe receives upon it a yielding presser foot D, connected by screws d, see Fig. 1, to the front end of a lever D′, pivoted at D^2, and normally held down toward the stock by a suitable strong spring D^3. The presser foot has connected with it by screws $d^\times$ a thin steel guard plate h^{13} having a slot $h^{13\times}$. The lever D′ has a lateral projection d' to which is jointed at d^2 a lifting bar or rod d^3, it being herein represented as provided with teeth as d^4 which are engaged by what I have designated a locking device, the same consisting of a pinion d^5 mounted on a stud d^6 of a lever d^7, said pinion having connected to or forming part of it at one end a series of ratchet teeth e. The bar d^3 is guided and its teeth d^4 are maintained in engagement with pinion d^5 by a roller d^{60} bearing against the smooth face of the bar opposite the teeth. The lever d^7, designated as a lifting lever, is pivoted at d^{70} on an upright d^{71} fixed to the head of the machine. The lever d^7 has a roller or other stud d^8 which is acted upon to move said lever once during each rotation of the main shaft A^2 by a cam d^9 fast on said shaft. The lever d^7 also carries a pawl e' having a tail e^2, and when said lever approaches its lowered position as represented in Fig. 3, the tail of said pawl meets a stationary stop or projection e^3 which turns the pawl so that it retires from its engagement with the ratchet teeth of the locking device, so that the spring D^3 immediately assumes control of the lever D′ and causes the guard plate of the presser foot to bear firmly upon the stock resting on the horn, said presser foot adapting itself in its position to any thickness of stock on the horn, leaving the toothed part of the rod or bar d^3, however, in engagement with the toothed part d^5 of the locking device.

Before the awl can act to feed the stock over the horn the pressure of the presser foot on the surface of the stock must be released, and to do this the cam d^9 meets the roller d^8 of the lever d^7 and lifts said lever, and immediately as the said lever starts, the tail e^2 of the pawl e' is carried above the projection e^3, permitting a spring acting on the back of said pawl to immediately force it into engagement with the ratchet teeth of the locking device, so that as the lever d^7 rises the rotation of the locking device and its toothed part d^5 is arrested, causing the teeth thereof in engagement with the teeth of the rod or bar d^3 to lift said rod or bar and with it the presser foot against the stress of the spring D^3, after the awl has entered the stock, and preferably after it has started to rise therefrom. It will be obvious that the extent to which the foot is lifted from the surface of the stock on which the foot rests will always be the same, irrespective of its thickness.

The awl may be and preferably is started upwardly preparatory to starting the slide B^2 to cause the awl to feed the stock, as thereby the point of the awl is in all cases lifted high enough from the inner side of the inner sole so that in no instance can said point meet the tip of the horn and scratch or mar the same and blunt the point of the awl.

Instead of the particular locking device shown, I may use any other usual or suitable equivalent device.

Herein the lever D′ has a depending ear 20 in which is secured by a suitable set screw D^5 the shank of an edge gage D^4, the latter bearing against the edge of the sole into which the peg is being driven.

Provision has to be made to raise the presser lever and foot in order that the latter may be elevated with relation to the horn when it is desired to put a shoe on the horn or remove a shoe from the horn. To do this the lever D′ has jointed to it a rod $D^{3\times}$ which in practice is extended down through the column to the floor where said rod may be joined to any usual or suitable foot treadle, so that whenever desired the operator, through said foot treadle, may lift said rod and the presser foot.

I have provided means whereby all the pegs cut from the ribbon are so driven that their points shall stand uniformly with relation to the inner side of the inner sole whatever may be the thickness of the stock, said points coming substantially to the tip of the stationary horn, and I have provided means, as stated, to cut off from the head-ends of the driven pegs the surplus left standing at the face of the outer sole, said surplus being more as the stock becomes thinner, and vice versa.

The peg ribbon f, but partially shown in Fig. 6, may, in practice, be in the form of a roll, and said roll may be supported to rotate in any usual manner, the end of said peg ribbon being introduced between a pair of rolls f' f^2, constituting peg-ribbon feeding mechanism. The journals or shafts sustaining these rolls are carried by a block f^{10} having a throat piece g provided with a driver passage h and an awl passage h', and these journals have like pinions f^3 which are geared together, and the journal of the roll f^2 has loosely mounted upon it a pawl carrier f^4 provided with a pawl f^5 which is normally kept in engagement, by any suitable spring, with the teeth of a ratchet wheel f^6 fast on one of said journals. The pawl carrier f^4 is moved in one direction to actuate the ratchet and feeding rolls by or through its contact with a stationary projection 31, suitably fixed to the frame, and in the oppo-

site direction by a spring $31^{\times}$ shown as connected with said pawl carrier and projection, see Fig. 6, as said block having the guideway f^{9} in which the peg ribbon is fed by the feeding rolls, is moved to and fro with the slide B^{2}. The block f^{10} rests on the presser foot D and a projection g' at the underside of the throat piece g enters the opening t, see Fig. 9, in said presser foot. The block f^{10} is fixed to and carried by a shank f^{12}, grooved at one side, see Fig. 13, said shank being extended upwardly between the edge h^{12} of the slide B^{2} and a cap f^{15} having ears f^{16}, which ears are adjustably secured to said slide by suitable set screws 2. A suitable spring 12 connected with said shank and with one of said ears normally acts to keep the block f^{10} seated upon the presser foot D.

The throat piece g has connected to or forming part of it a grooved projection h^{3} in which is placed a carrier h^{4} provided with a peg ribbon cutter h^{5}, see Figs. 2 and 5. This cutter is moved forward to meet the peg ribbon and cut a peg therefrom by or through the action of a lever h^{6} pivoted at h^{7} and having its short arm entering a groove in the carrier h^{4}. The upper end of this lever h^{6}, shown as cam-shaped, see Fig. 3, is acted upon by a cam h^{8}, carried by the awl slide, the lever being moved in the opposite direction by a spring h^{10}, which may be fast at one end to the throat piece g.

The passage g^{30} in the throat piece g, see Figs. 5 and 7, receives a shaft g^{3} provided at its upper end with a gear g^{5}, and this shaft is oscillated or rotated in one and then in the opposite direction by a rack g^{6} movable in a space g^{24} in throat piece g and carried by a rod g^{60} loosely connected with a pin $60^{\times}$ held in one end of a lever g^{7} having its fulcrum at g^{8}, and having a roller or other stud g^{10} that enters a cam groove in a cam g^{12} fast on the main shaft A^{2}, said cam moving said lever and reciprocating said rack whatever the thickness of the stock under the presser foot. The lower end of the shaft g^{3} has applied to it a dished or recessed washer g^{2} shown detached in Fig. 12, and thereafter the dished eccentrically projecting hub of the severing device or surplus remover g^{20}, shown as a saw, is applied to said shaft and held in place thereon by a screw g^{22}. The teeth of the severing device owing to its being mounted eccentrically on said shaft, sweep across the lower end of the driver passage h in the throat piece and over the guard plate h^{13}, and cut transversely the part of the driven peg left standing above the stock, the surplus peg wood or head of the driven peg left projecting above the stock, when the latter is of a thickness less than the length of the peg, being thrown by the severing device out from the driver passage through a slot g^{23} at its lower end. This operation shortens the peg by cutting the same off flush with the face of the stock. The saw is free to be oscillated in a recess, shown best in the enlarged view Fig. 8, made in the underside of the projecting portion g' of the throat g that enters the space t of the presser foot D. The side of the presser foot opposite the recess g^{23} is beveled or cut away so as not to obstruct the escape of the surplus head end of the peg. The guard plate h^{13} rests on the surface of the stock lying on the horn and prevents the screw g^{22} and the peg shortening or severing device g^{20} from contacting with the face of the stock.

The peg driven into the stock is also driven through the slot $h^{13\times}$ of the thin steel guard plate h^{13} of the presser foot which is borne against the face of the stock by a force due to the strong spring D^{3}, the pressure on the stock of said foot through the guard plate being sufficient to cause the stock to rise in said slot substantially to the level of the upper side of said guard plate, while the projecting lower end g' of the throat piece g enters and the peg shortening device g^{20} moves in the space t. Said device in the movements of its edge against the peg therefore cuts off the peg flush with the stock raised in the slot $h^{13\times}$. The edge of the cutter in its retracted or inoperative position is always brought to exactly the same distance from the peg whatever the thickness of the stock, and the edge of said shortening device when moved to cut off the peg at right angles to its length is always moved for just the same distance and for a distance sufficient to pass entirely across the peg. The small portion of stock standing in the slot $h^{13\times}$ of the guard plate when each peg is driven, is pressed down to the general level of the stock by the unperforated portion of the guard plate h^{13} as the latter is pressed upon it by the strong spring D^{3} while subsequent pegs are being driven.

In operation it will be understood that the cutter h^{5} acts to cut a single peg from the end of the peg ribbon while the driver is in its lowest positon with the end of the ribbon resting against it, the awl being at such time in the work. When the slide B^{2} with the block f^{10} is moved to the right after the stock has been fed the pawl carrier f^{4} meets the projection 31 causing the pawl in engagement with the ratchet wheel f^{6} to rotate the peg ribbon feeding mechanism to feed the peg ribbon in the passage f^{9}, causing the peg previously formed and standing at the end of the peg ribbon in said passage to be moved forwardly therein, said peg being put into the driver passage h below the driver which will have been raised during the latter portion of the upward movement of the awl. The projection b is made of such length that it will be released by block a^{4} just after the slide B^{2} has reached its ex-

treme position at the right, as shown in Fig. 3, with the driver in alinement with the hole last previously made by the awl so that the driver will descend and drive the peg, leaving the head thereof protruding above the stock, if the stock is thinner than the length of the peg, and, as shown, the head end is left standing in the driver passage. The severing device is then oscillated and caused to act upon the peg, cutting the same transversely, thus shortening the driven peg at its head end, and the surplus peg wood removed from the end of the peg and left in the driver passage h thereafter, passes therefrom into the slot g^{23}, see Figs. 8 and 8^a, at the underside of the throat piece g and escapes through said slot from the machine. Inasmuch as the head end of the peg in the particular embodiment of my invention herein represented stands in the driver passage, the head of each peg is severed immediately after being driven and before the shoe is fed. Then while the awl is in the stock and while the driver is being elevated as described, the slide B^2 and the block f^{10} are moved to the left, see Fig. 6, to feed the stock, the presser-foot being then lifted to release its pressure on the stock, and at such time the spring 31^x connecting the projection 31 with the carrier f^4 causes the pawl f^5 to slip back over the ratchet wheel f^6 into its starting position. By mounting the saw eccentrically as stated its edge is made to act gradually farther and farther from its center of rotation, so that the peg may gradually be severed transversely with a draw cut.

The rising and falling presser foot and the stock support constitute a calipering means between which the stock is measured in thickness as it is being fed over the stock-support, and during the movements of these parts in calipering the stock the peg severing device is also made to follow variations in thickness of the stock and remove the projecting portion of each peg after the same has been driven into the stock.

Having thus fully described a machine embodying the invention, what I claim as new and desire to protect by Letters Patent of the United States is—

1. In a pegging machine, means to feed a peg ribbon, means to sever a peg from said ribbon, a driver, means to actuate the same to drive a peg and leave its head end protruding from the face of the stock, a peg shortener and means to actuate said peg shortener uniformly irrespective of the thickness of the stock to remove the protruding head end of said peg.

2. In a pegging machine, an awl, means to move it laterally to feed the stock, mechanism for feeding a peg ribbon, means to sever said peg ribbon transversely to form pegs, a stock support, a driver to drive pegs into stock of varying thickness and leave their points uniform with relation to the underside of the stock and their heads projecting more or less above the stock according to the thickness thereof, a presser foot to bear on the face of the stock, a rod connected with said presser foot, a lifting lever having means to engage said rod, and automatic means to actuate said lever to lift said rod and raise said presser foot from the surface of the stock preparatory to feeding the same.

3. In a pegging machine, the following instrumentalities viz., a vertically non-yielding stock support, a presser foot to bear on and conform itself to stock of varying thickness, means to lift said presser foot from said stock in order that it may be fed over said stock support, a block resting on and free to rise and fall with said presser foot, said block containing a guideway for a peg ribbon, feeding mechanism for said peg ribbon, cutting mechanism to sever said peg ribbon into separate pegs, a driver having a uniform stroke and adapted to drive said pegs uniformly in said stock with relation to the tip of the stock support, severing mechanism to sever the peg transversely close to the surface of the stock, to thereby remove the surplus head end of the driven peg where the stock is thinner than the length of the peg, and feeding mechanism for the stock, substantially as described.

4. In a pegging machine, means to drive a peg into stock, leaving its head end projecting from the face of the stock, a peg shortener having a cutting edge movable in a plane at right angles to the length of the peg, and means to actuate the shortener to carry its cutting edge at each stroke fully across the peg to be shortened.

5. In a pegging machine, a throat-piece having at its underside a recess, an eccentrically mounted severing device located in said recess, a driver passage adapted to retain the head end of a peg, and means to move said eccentric severing device that it may gradually engage and cut into a driven peg, severing it transversely close to the surface of the stock, substantially as described.

6. In a pegging machine, a throat piece having a driver passage, a shaft supported in said throat piece, a saw having a recessed hub mounted eccentrically upon said shaft, means to actuate said shaft to carry the edge of said saw across said driver passage combined with means located within the recess of the hub for retaining said saw in place on said shaft.

7. In a pegging machine, a block having a guideway for the reception of a peg ribbon, feeding mechanism to feed said peg ribbon in said guideway, a throat-piece having a driver passage, a cutter to sever said peg ribbon to form a peg which is left in said driver passage, a vertically non-mov-

able stock-support to support the stock, a presser foot to sustain said block, said presser foot resting on and adapting itself to the thickness of the stock on the stock-support, said presser foot in its movements taking with it the block, and means rising and falling with said block to remove the projecting head end of each driven peg, substantially as described.

8. In a pegging machine, calipering means to measure the thickness of the stock, means to release said calipering means to allow the stock to be fed, feeding mechanism to feed the stock when released, means to support a peg ribbon, means to form pegs from said peg ribbon, a driver to drive said pegs, and means variable in position and controlled by said calipering means to remove from each driven peg its projecting head end left at the face of the stock due to the stock being thinner than the length of the driven peg.

9. In a machine of the class described, the combination with fastening inserting mechanism and a stock support, of an awl, constructed and arranged to penetrate the stock, to retract sufficiently to raise the point of the awl above the lower surface of the stock, and then to feed the stock while the point of the awl is in the stock but does not extend through the stock.

10. In a machine of the class described, a stock support, an awl for perforating and for feeding the stock constructed and arranged so that its point will first pass below and outside of the supporting surface of the stock support to perforate the stock and then above and over the stock support to feed the stock, and means for actuating the awl.

11. In a machine of the class described, a stock support with an imperforate supporting surface, an awl movable transversely over said surface to feed the stock, and means for actuating the awl to carry its point below and outside said surface and then to retract the awl to raise its point above the plane of the stock support, thus permitting the stock to be fed by the awl.

12. In a pegging machine, a stock support having at its upper end a projection to sustain the stock, an awl, means to actuate the same to penetrate the stock, the point of the awl passing the side of said projection, and thus partially elevate said awl from the stock as the awl is moved to feed the stock over the stock support so as to prevent the point of the awl from striking said projection substantially as described.

13. In a pegging machine, a stock support, a presser foot resting on the outer face of the stock sustained on said stock support, a block sustained by said presser foot, said block having a driver passage, a peg ribbon passage, a peg former carried in said block, means to move said peg former to form pegs from the peg ribbon sustained in said block, and a peg severing device also carried by said block and occupying a position substantially at the lower end thereof where the block is sustained by the presser foot, said block and its attached devices rising and falling in unison with the presser foot, the peg severing device removing from each driven peg the end thereof which is left projecting from the outer face of the stock, substantially as described.

14. In a pegging machine, means to feed a peg ribbon, means to sever a peg from said ribbon, a driver, means to actuate the same to drive a peg into stock and leave its head end projecting from the face of the stock, a peg shortener and automatically actuated means to move the same in a plane at right angles to the length of the peg to cut off said peg close to the stock.

15. In a pegging machine, means to drive a peg into stock, leaving its head projecting from the face of the stock, and means to sever with a draw cut the head of the peg close to the stock.

16. In a pegging machine, means to feed a peg ribbon, means to sever a peg from said peg ribbon, means to drive said peg leaving its head projecting from the face of the stock, a slotted guard plate to bear on the stock, a peg shortener, and means independent of the peg driving means to actuate said shortener to cut the head end of the driven peg flush with the face of the stock.

17. In a pegging machine, a throat piece having a peg ribbon guideway and a driver passage, a driver bar having a driver, a peg shortener located in the lower end of said throat piece near said driver passage, means to feed the peg ribbon in said guideway, a cutter to sever the peg ribbon transversely, means to move said cutter to form separate pegs, and means independent of said driver bar to actuate said peg shortener and cut the driven peg flush with the face of the stock.

18. In a pegging machine, a throat-piece having a peg ribbon guideway and a driver passage, a presser foot having an attached slotted guard plate to bear on the stock, a driver bar having a driver, an awl carrying slide having an awl to enter said slot when feeding the stock, a peg shortener located in the lower end of said throat piece near said driver passage, means to feed the peg ribbon in said guideway, a cutter to sever the peg ribbon transversely, means to move said cutter to form separate pegs, and means independent of said driver bar to actuate said peg shortener and cut the driven peg flush with the face of the stock.

19. In a pegging machine, a stock support, a yielding presser-foot, means to lift the same to free the stock for feeding, a peg shortener mounted on said presser-foot, a lever sustained on a stationary part of the

machine, and operatively connected to the peg shortener and means to actuate the lever to cause the peg shortener to sever a peg in a plane close to the stock irrespective of the thickness of the stock.

20. In a pegging machine, a head having an awl-carrying slide provided with an awl, means to move said slide in said head that the awl may penetrate the stock, means to move said head laterally to feed the stock while entered by the awl, a block having a peg ribbon guideway, an attached throat piece having a driver passage in communication with said guideway, means to sever a peg ribbon sustained in said guideway to form a peg, and means to move a peg ribbon and carry the peg cut therefrom into said driver passage, a driver, means to actuate the same to drive a peg into the stock and leave its head projecting above the face of the stock, a peg shortener, and means independent of the movable head to move the peg shortener to cut off the driven peg flush with the face of the stock.

21. In a machine of the class described, a throat-piece having a driver passage the wall of which is slotted for the reception of a peg and for the removal of the surplus wood, means to cut a peg ribbon transversely to form a peg and leave the same in said driver passage, a driver to drive the peg from said driver passage, a peg shortener, and means to move the same to cut the driven peg flush with the stock.

22. In a machine of the class described, a block having a peg ribbon guideway and attached throat-piece having a driver passage, means to sever a peg from peg ribbon and leave a severed peg in said guideway, means to move the peg ribbon and feed the peg from said guideway into said driver passage, means to drive pegs from said driver passage leaving portions of their head ends projecting above the stock, a peg shortener having a cutting edge, and means to move said edge to and fro, said edge in one direction of its movement cutting fully across the driver passage and severing the driven peg transversely.

23. In a pegging machine, means to drive a peg so as to leave its head end projecting from the face of the stock, a peg shortener having a saw-toothed cutting edge, and means to actuate said shortener to saw off the said end close to the surface of the stock.

24. In a pegging machine, a stock support, a presser foot having at its under side a guard plate provided with a slot, means for forcing the presser foot down upon the stock to clamp it and to cause a portion of the stock to rise in said slot, means to drive a peg into the stock in said slot so as to leave the head of the peg projecting above the stock in the slot, a peg shortener located above said plate, and means to actuate said shortener to cut off the peg flush with the face of the stock.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

ORRELL ASHTON.

Witnesses:

GEO. W. GREGORY,

EMMA J. BENNETT.