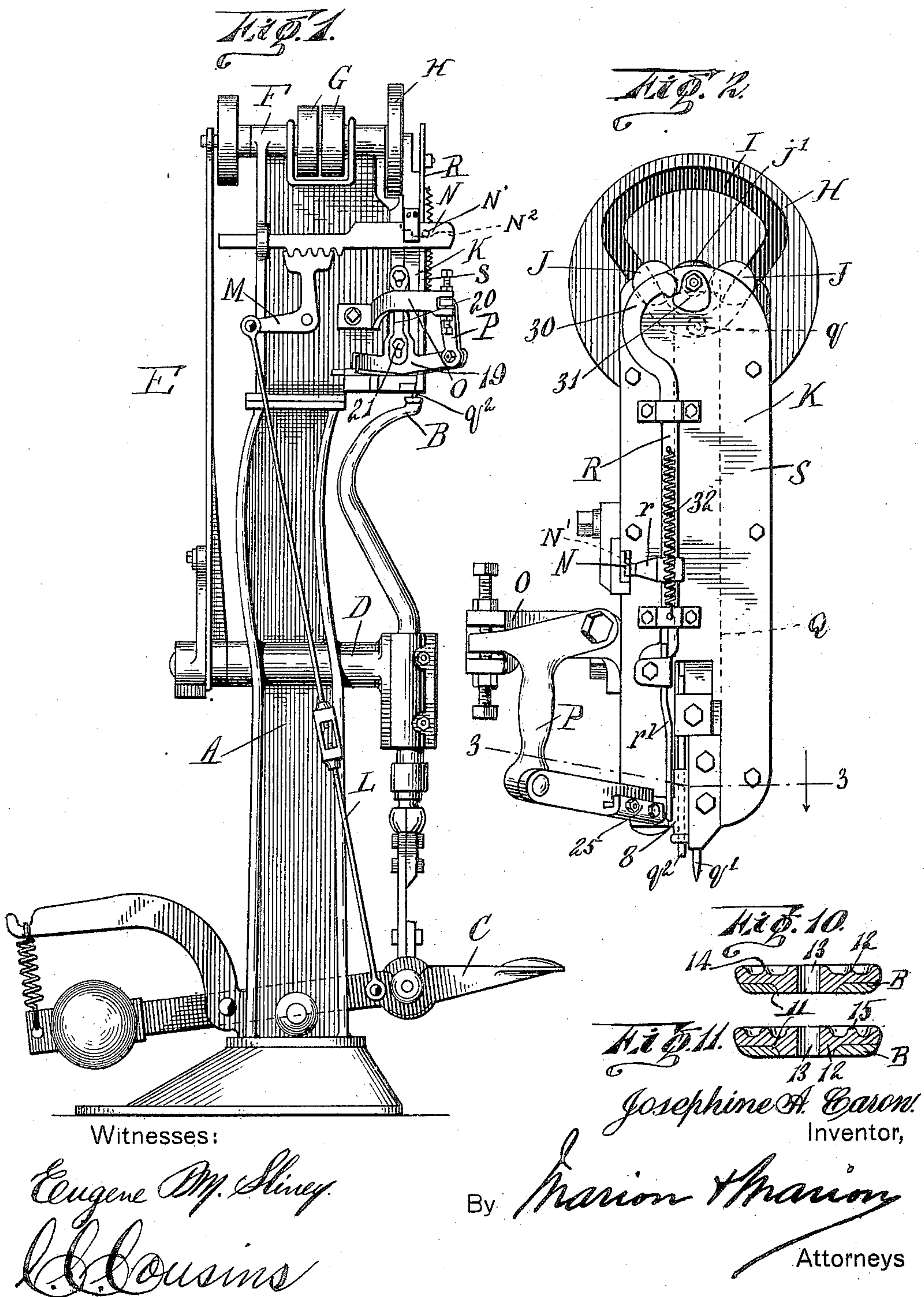


No. 875,149.

PATENTED DEC. 31, 1907.

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PEGGING MACHINE.  
APPLICATION FILED JAN. 30, 1907.

2 SHEETS—SHEET 1.



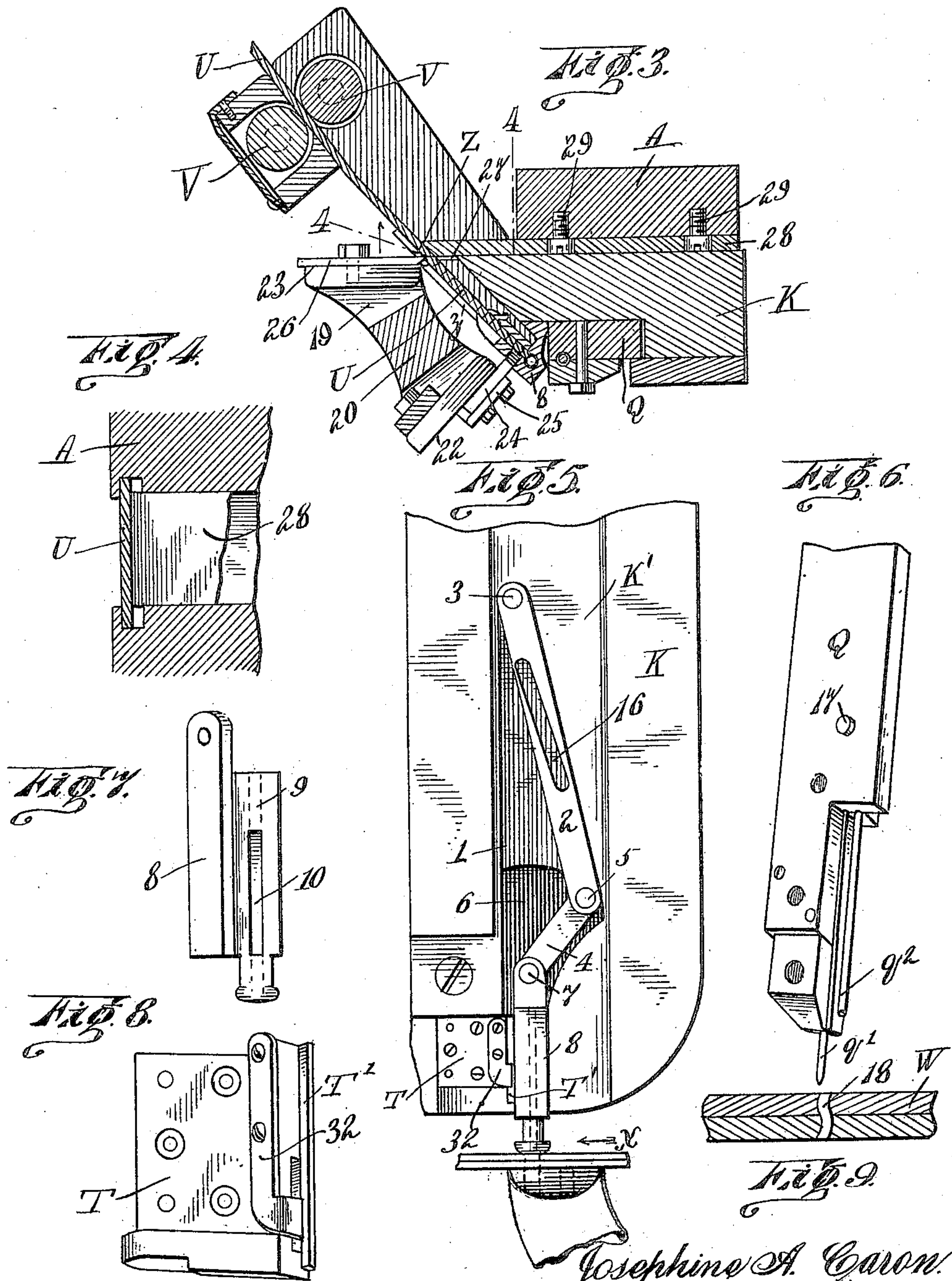
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# UNITED STATES PATENT OFFICE.

JOSEPHINE ANTOINETTE CARON, OF MONTREAL, QUEBEC, CANADA.

## PEGGING-MACHINE.

No. 875,149.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed January 30, 1907. Serial No. 354,827.

*To all whom it may concern:*

Be it known that I, JOSEPHINE ANTOINETTE CARON, (wife of B. O. BELAND,) a subject of the King of Great Britain, residing at the city and district of Montreal, in the Province of Quebec, Canada, have invented certain new and useful Improvements in Pegging-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to pegging machines; the object of my invention is to provide a machine adapted for use in securing materials together by means of pegs of wood or of other material which may be softer or harder than wood, such as leather or zinc.

A further, more specific, object is to provide a construction in a pegging machine which is less noisy and which will permit the use of softer pegs than known forms, by having the throat bear constantly on the work which is passing between it and the anvil, so that there is no space left between the throat and the work in which the peg may become bent or twisted.

A further object is to provide means for mounting the splitting and cutting knives separately from each other, so that the splitting knife is worn and dulled only by passing through the ribbon from which the pegs are cut.

A further object is to provide means for preventing the ribbon, from which the pegs are cut, from crowding on the splitting knife, which works directly through the ribbon and into a slot, rather than against an abutment plate; which would dull and wear the splitting knife.

A further object is to provide a construction adapted to upset a peg so that it assumes a doubly curved form, thereby strengthening the plies of material which are secured together by the pegs.

My invention consists, generally, of the construction, combination and arrangement of parts, as herein illustrated, described and claimed.

In the accompanying drawings, forming part of this application, I have illustrated one form of embodiment of my invention, in which drawings similar reference characters designate corresponding parts, and in which:

Figure 1 is a side elevation of a known

form of machine, showing the application of my invention; Fig. 2 is a front elevation of the head of the machine, showing the attachment of the improvements of my invention; Fig. 3 is a horizontal section taken approximately on line 3—3 of Fig. 2, and showing the construction of the throat, the cutting knives and their coöperating parts; Fig. 4 is a fragmentary detail in section taken approximately on line 4—4 of Fig. 3, showing the relative positions of the ribbon and the guard plate which prevents the ribbon from crowding on the splitting knife; Fig. 5 is a fragmentary detail in front elevation of a portion of the head illustrating the throat actuating mechanism with the other parts removed; Fig. 6 is a fragmentary detail showing in rear perspective the awl and hammer plate or bar; Fig. 7 is a fragmentary detail in left-hand side elevation of the throat; Fig. 8 is a fragmentary detail, in front elevation, of the ribbon guide next adjacent the throat; Fig. 9 is an enlarged vertical section through two plies of work, showing the peg in elevation; Fig. 10 is a fragmentary detail, in vertical section, through one form of an anvil head; and Fig. 11 is a fragmentary detail, in vertical section, through a modified form of anvil head.

The general construction of the illustrated machine is known to be old, and is the construction illustrated in my United States Patent No. 735,499, which I hold by assignments, and the parts known to be old, so far as practical in the following specification, have been designated by reference letters, while the parts which are new are designated by reference numerals. In the construction shown in said patent, it is impossible to use pegs softer than wood, because of the play which is given the throat, or the distance which normally separates the work from the throat.

Referring to the drawings, A designates a frame adapted to support a rotatable oscillatory and vertically adjustable anvil B, the vertical movement of which is adapted to be controlled by the foot lever C. A rock shaft D is adapted to oscillate the anvil B, through the medium of a connecting rod E actuated from the upper shaft F, carrying the fast and loose pulleys G. Mounted on the front end of the shaft F, is a pulley H, formed with a grooved cam I.

Rollers J, carried by the laterally rockable



head K, are adapted to contact with the cam  $j^1$  on the shaft F, so as to give the head its laterally rocking movement.

A connecting rod L extends from the foot lever to a toothed bell crank lever M, adapted to reciprocate a rod N, which coöperates with the peg moving mechanism to regulate the length of the peg. The reciprocation of the peg moving mechanism is accomplished by a roller  $N'$  attached to the peg moving mechanism and adapted to be engaged and moved by the cam surface  $N^2$  of the rod N which is reciprocated as above stated. This construction is clearly set forth in Figs. 1 and 2.

A solid arm O is secured to the upper portion of the frame A, and has thereon a hanger P.

A vertically reciprocable bar Q is disposed on the front face of the head, and is adapted to be reciprocated vertically by means of the roller  $q$  carried thereby, and running in the grooved cam I. The bar Q carries the awl  $q^1$  and the hammer  $q^2$ .

A vertically reciprocable rod R is normally maintained in depressed position by suitable resilient means, and is provided with a lug  $r$ , coöperating with the rod N which is slightly tapered, and also carries the hooked finger  $r^1$  inserted in the throat and adapted to actuate the pegs downward so that they may be cut the desired length by the cutting knife. The length of the movement downward of the rod R is entirely dependent upon the position of the rod N, which in turn is positioned by the foot lever C connected to the anvil B over which the work passes. As the anvil B is depressed by increased plies of work passing between it and the throat, the rod N is actuated rearwardly, permitting less downward movement of the rod R, and consequently the pegs which pass into the throat are cut longer to suit the requirements of the work at that time under the throat.

A cover plate S is disposed over the face of the head K, and the ribbon guide T provided with an abutment plate  $T^1$  is disposed on the side of the machine and is adapted to guide the ribbon U of suitable material, such as wood, leather, metal, &c., which is actuated forward by the feed rolls V.

Provided in the head K, is a recess 1, in which is disposed a link 2, pivoted at its upper end as at 3, and having connected to its lower end a link 4, as by means of the pivot 5. The link 4 rides in a recess 6 in the head K, so that it is guided in its movement when actuated by the link 2. The lower end of the link 4 is pivoted as at 7 to the upper end of the throat 8, having a vertical bore 9 and an opening 10 in one side communicating with the vertical bore 9 and adapted to permit the pegs to pass into said vertical bore.

The anvil B is perforated at 11 to receive

the removable head 12, which removable head is provided with a bore 13 coinciding in position and size with the awl  $q^1$ , so that no lateral movement of the awl  $q^1$  is permitted, as the head K and anvil B are reciprocated simultaneously. The direct advantage of having the awl and the bore 13 of the same size is that the awl will not become easily broken on account of its not having any play, and the replacing of awls is a considerable item of expense to the manufacturer. The removable head 12 in the form shown in Fig. 10 is provided with a sharpened annular flange 14 adapted for use with pegs of metal, so that the lower end of the peg is split and riveted while being bent, while the form shown in Fig. 11 is provided with a flange 15 of rounded contour adapted for use in connection with pegs of wood, and more especially of leather which is soft, and the ends of which are easily upset.

The head K is provided with a vertical slot  $K^1$ , in which the bar Q is adapted to work, and the rear side of the bar Q is provided with a lug 17 disposed in the inclined slot 16 of the link 2. As the bar Q is reciprocated by means of the roller  $q$ , the link 2 is reciprocated laterally, causing a vertical reciprocation of the throat 8, but the pressure of the lug 17 on the wall of the slot 16 maintains the throat constantly on the work while the peg is being driven, thus preventing a soft peg 18 from being bent, twisted or broken, as when it leaves the throat it must enter the work W. The bar Q being positively actuated, the hammer  $q^2$  travels farther than the throat 8, so that it forces the peg 18 entirely into the work, and the reciprocatory movement of the head K and the anvil B causes the peg to assume the shape shown in Fig. 9. It will be understood that the forward movement of the work in the direction of the arrow X of Fig. 5 is caused by the lateral reciprocation of the head K, while the awl  $q^1$  is in lowered position.

A knife block 19 is partly supported by the hanger P, and is provided with a slotted shank 20 adjustably secured to a portion of the frame A by means of the bolts 21. The knife block is provided with a face 22 on one side, which is disposed vertically and at right angles to the ribbon U, from which the pegs are cut, while the other side of the block is provided with a vertical face 23 disposed at an angle to the face 22. This face 23 is at an angle also to the ribbon U. Disposed on the face 22 of the knife block, is a cutting knife 24, the same width as the peg, the length of which is to be cut thereby. The knife 24 is maintained in position by means of the guide 25 of ordinary construction.

A splitting knife 26 is secured to the face 23, and works through a slot Z in the supplementary ribbon guide 2, which is secured to the side of the frame A. The splitting knife



26 passes through the slot Z into the recess 27 formed in the side of the frame A, so that the splitting knife 26 does not contact with an abutment plate or similar part, and does not become dulled except by contact with the ribbon U. To prevent the ribbon from crowding into the recess 27 in the operation of the machine, a plate 28 is secured to the frame A as by means of the bolts 29, so that when the head K is rocked laterally, the ribbon U is pressed against the splitting knife 26, and a peg severed, and the feed of the ribbon U for the moment stopped.

Suitable means may be used to actuate the feed rollers V to withdraw the ribbon U the thickness of the knife 26, to give more perfect movement thereof. The head being oscillated back, the ribbon is again fed to present a suitable width of peg to be cut.

For the purpose of raising the rod R which carries the hooked bar  $r^1$  extending into the throat 8, the upper end of the rod  $r$  is provided with a hooked portion 30 adapted to be engaged by the cam 31 carried on the forward end of the shaft F. A suitable spring 32 is carried by the ribbon guide T, between the lower end of which and the abutment plate  $T^1$ , the peg passes into the slot 10 of the throat 8.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. In a pegging machine, having peg cutting and driving mechanism, an anvil and a peg guiding throat, and means coöperating with the peg driving mechanism for maintaining the throat on the anvil.

2. In a pegging machine, having peg cutting and driving mechanism, an anvil and a peg guiding throat, and pivotally connected means actuated by the peg driving mechanism for maintaining the throat on the anvil.

3. In a pegging machine having a rockable head provided with recesses, a link pivoted to the head and disposed in one of the recesses, a second link pivoted to the first link and disposed in the other recess, a throat pivoted to the second link, an anvil disposed beneath the head, peg cutting, feeding and driving mechanism coöperating with the throat, and means for rocking the first link laterally on its pivot.

4. In a pegging machine, the combination

with an oscillatory head carrying punching, and peg driving and guiding mechanism, of a knife block having vertical sides disposed at an angle to each other, and knives carried by said sides.

5. In a pegging machine, the combination with an oscillatory head carrying punching, and peg driving and guiding mechanism, of a knife block having vertical sides disposed at an angle to each other and said block being provided with a slotted shank, attaching bolts disposed through the slots, and knives carried by said sides.

6. In a pegging machine, the combination with an oscillatory head carrying punching, and peg driving and guiding mechanism, of a knife block having vertical sides disposed at an angle to each other, and knives carried by said sides, and said head being provided with a slot into which one of the knives is arranged to enter.

7. In a pegging machine, the combination with an oscillatory head carrying punching, and peg driving and guiding mechanism, of a knife block having vertical sides disposed at an angle to each other, and knives carried by said sides, and said head being provided with a slot into which one of the knives is arranged to enter, and a plate disposed on the head projecting over the slot adjacent the path of the knife.

8. In a pegging machine, the combination with an oscillatory head carrying punching, and peg driving and guiding mechanism, of a knife block having vertical sides disposed at an angle to each other, and knives carried by said sides, and said head being provided with a slot into which one of the knives is arranged to enter, and means for preventing a peg ribbon from entering the slot.

9. In a pegging machine, in combination with a guiding and cutting mechanism, an anvil, and a throat, a reciprocable hammer disposed through the throat, means for actuating the throat toward the anvil and means for actuating the hammer farther than the throat towards the anvil.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

JOSEPHINE ANTOINETTE CARON.

Witnesses:

C. C. COUSINS,  
E. M. SLINNEY.