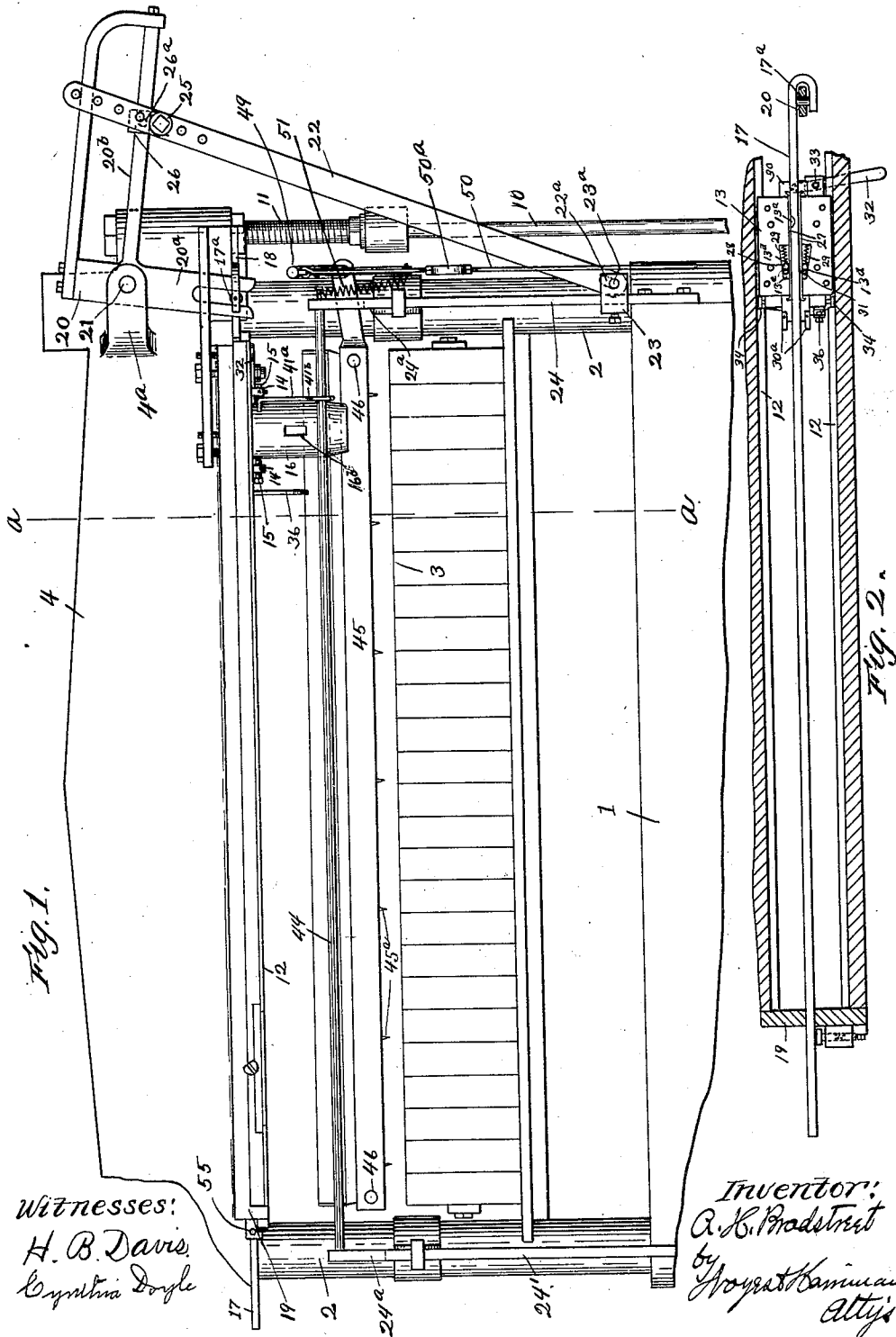


A. H. BRADSTREET.
DIEING-OUT MACHINE.
APPLICATION FILED OCT. 3, 1910.

1,067,461.

Patented July 15, 1913.

5 SHEETS-SHEET 1.

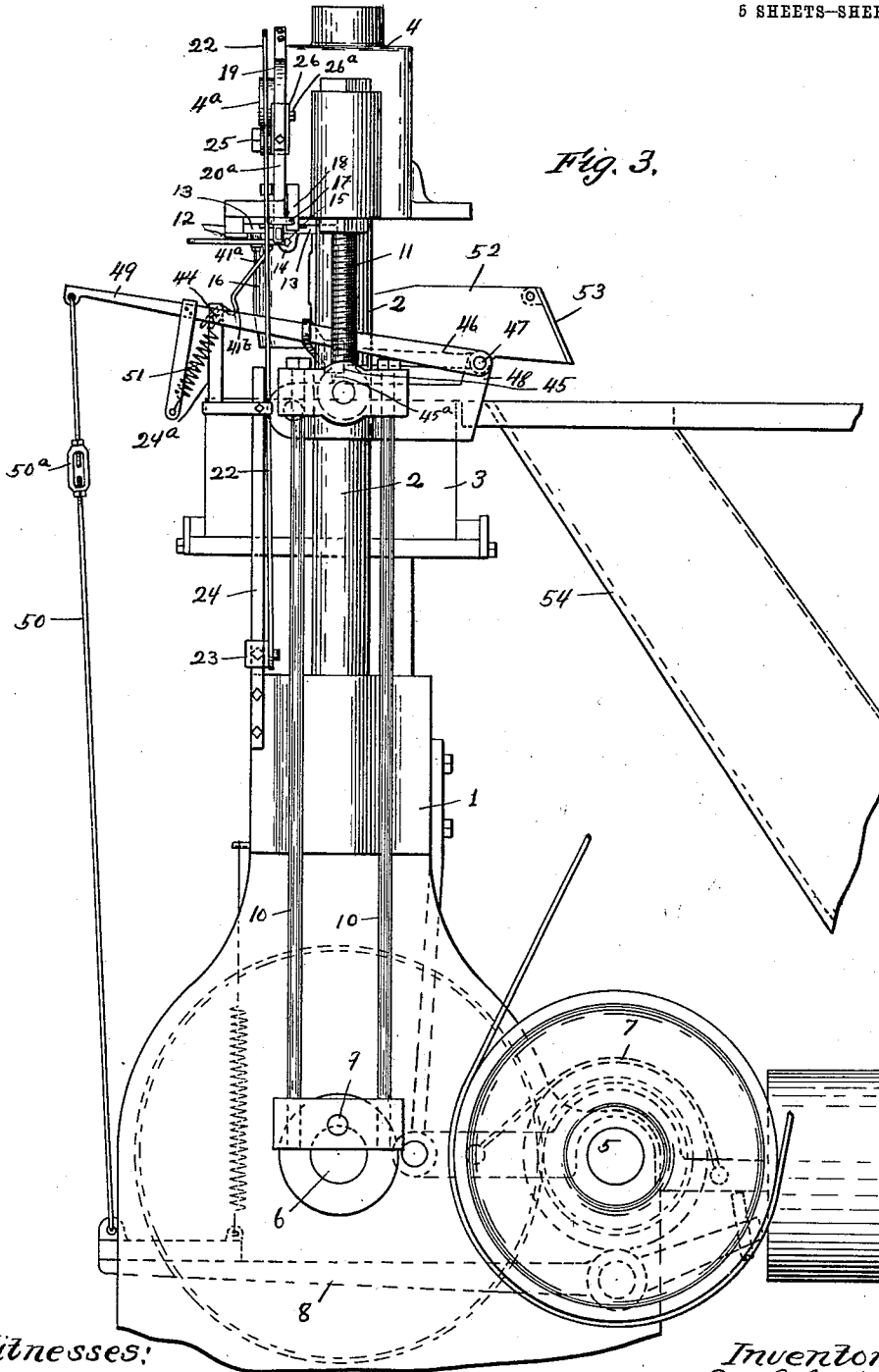


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5 SHEETS—SHEET 2.



Witnesses:
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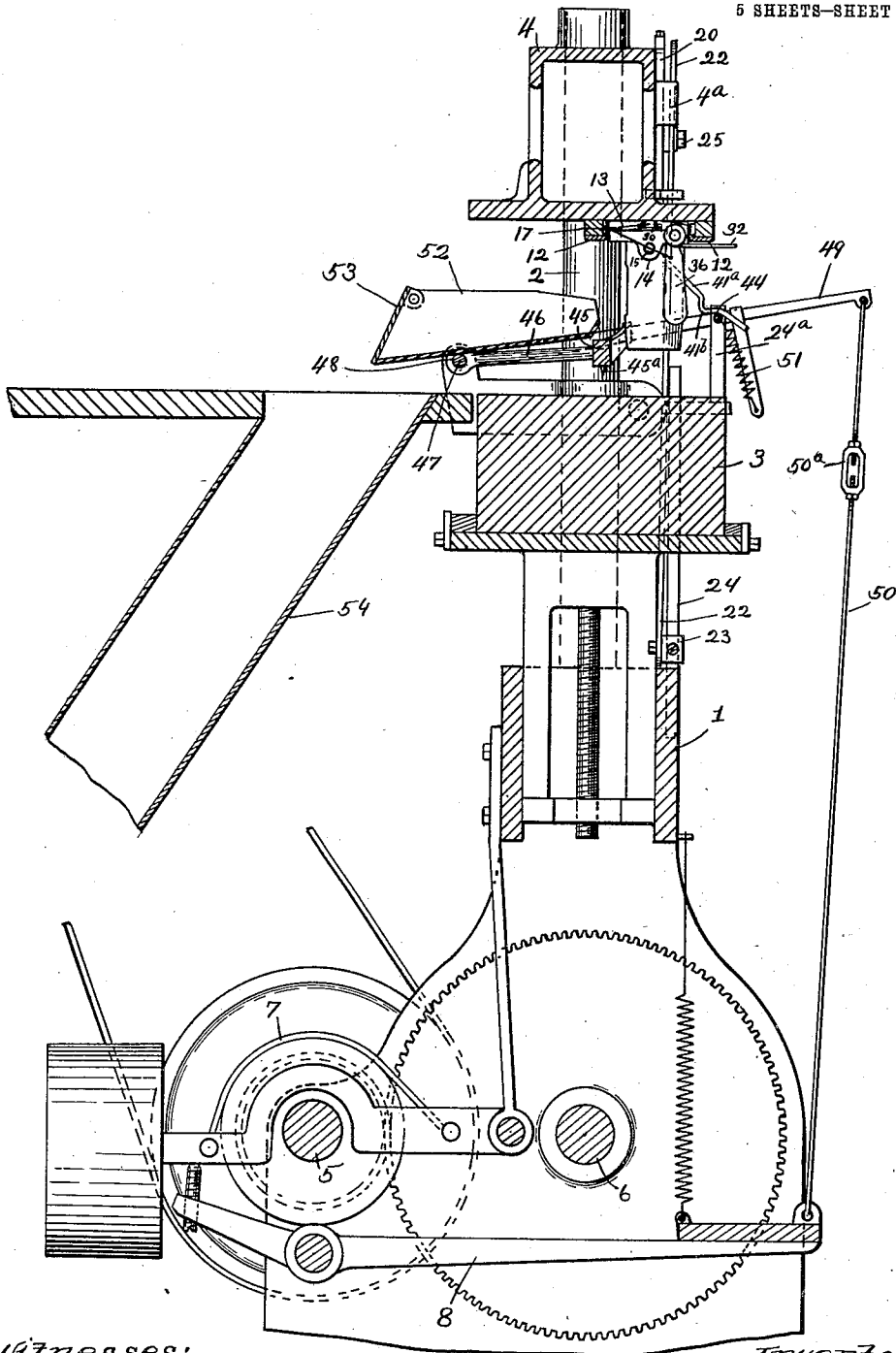
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5 SHEETS—SHEET 3.



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Fig. 4.

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5 SHEETS—SHEET 4.

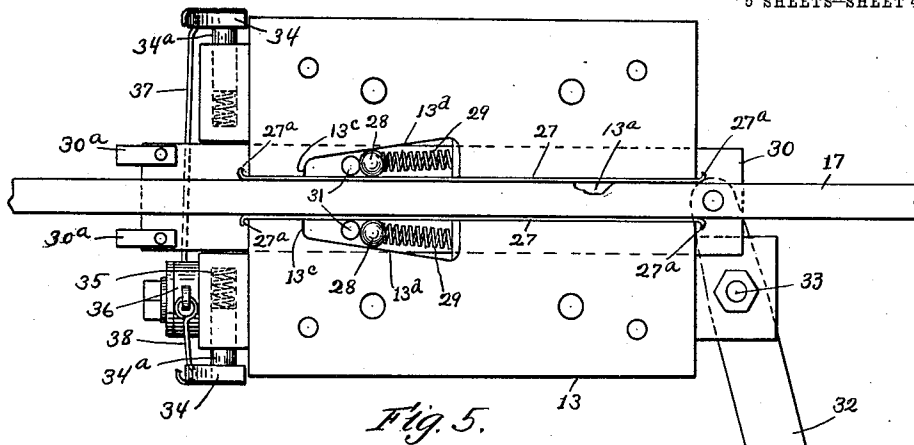


Fig. 5.

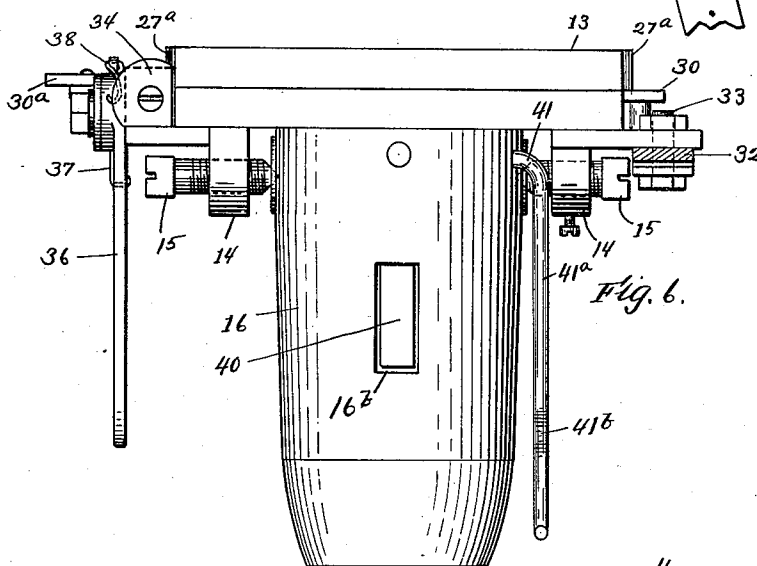


Fig. 6.

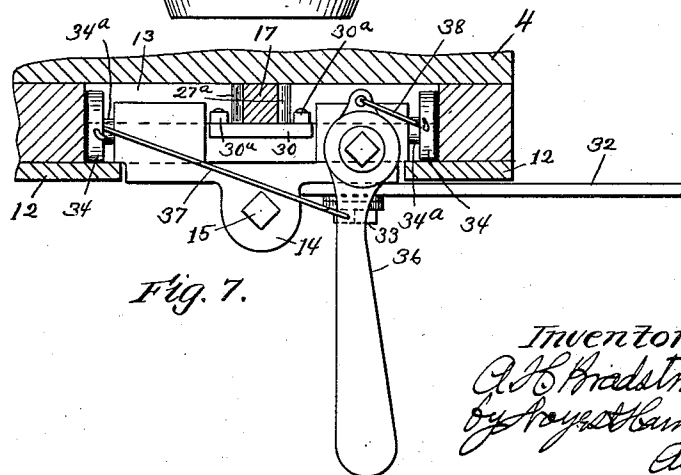


Fig. 7.

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5 SHEETS—SHEET 5.

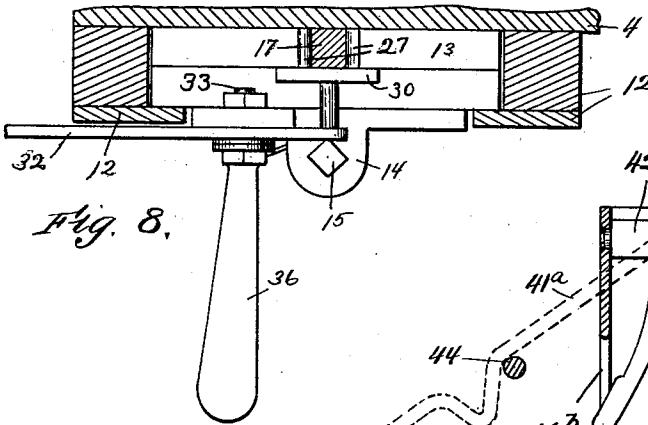


Fig. 8.

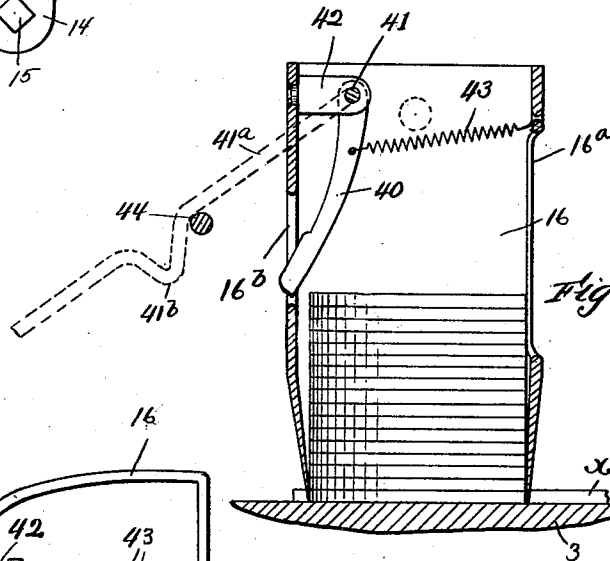


Fig. 10.

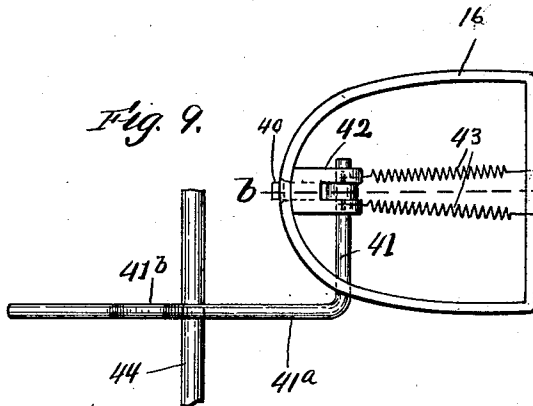


Fig. 9.

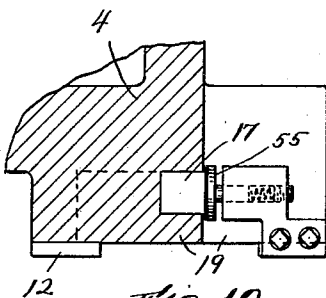


Fig. 12.

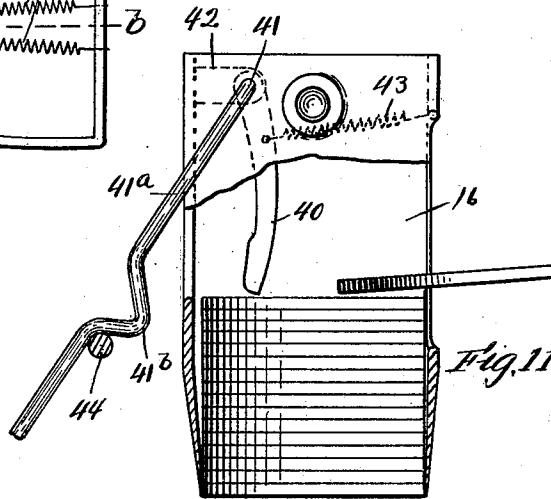
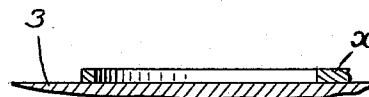


Fig. 11.



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UNITED STATES PATENT OFFICE.

ARTHUR H. BRADSTREET, OF HAVERHILL, MASSACHUSETTS.

DIEING-OUT MACHINE.

1,067,461.

Specification of Letters Patent.

Patented July 15, 1913.

Application filed October 3, 1910. Serial No. 585,036.

To all whom it may concern:

Be it known that I, ARTHUR H. BRADSTREET, residing at Haverhill, in the county of Essex and State of Massachusetts, have
5 invented an Improvement in Dieing-Out Machines, of which the following is a specification.

This invention relates to certain improvements in machines for dieing-out heel lifts, 10 or other blanks, from rectangular sheets of material, such as leather-board, and in which a cutting bed is provided over which a cross-head, having a die-engaging face on its under side, is mounted to reciprocate vertically. In machines of this character it has
15 been customary for the operator to hold the die in his hand and move it to successive positions on the sheet, from one end of the bed to the other, so that a series of blanks are cut from the sheet throughout its entire
20 width. These machines are usually speeded so that the operator may hold his foot on the operating treadle, causing the machine to operate continuously, as he moves the die from place to place, but, in order that the
25 production may be as great as possible the machine is speeded as high as possible, and but little time is afforded for the operator to set his die so as to cut the stock with the least waste possible, or to avoid cutting out
30 incomplete blanks. Moreover, the speed of the machine is obviously limited to the rapidity with which the operator can move the die from one position to the next, and the fingers of operators are frequently injured in operating these machines.

The principal object of my invention is to provide, in a machine of the above described character, means for automatically feeding
40 the die lengthwise of the bed a distance exactly equal the diameter of the blank, for each reciprocation of the cross-head, so that a series of blanks may be cut from the sheet throughout its entire width, without the necessity of the operator touching the die, so
45 that waste of material is prevented, the speed of the machine may be increased, and the possibility of accident is avoided.

A further object of my invention is to provide means whereby the distance which
50 the die is fed may be accurately varied according to the size of the blank to be cut.

Another object is to provide an effective means for automatically ejecting the blanks
55 from the die and delivering them to a receiver in such a manner that they will not

fall on the sheet from which the blanks are being cut, and interfere with the cutting operation.

For an understanding of the means which I preferably employ in carrying out my invention, reference is made to the accompanying drawing, in which:—

Figure 1 is a front elevation of the head portion of the machine. Fig. 2 is a detail view of the die-feeding mechanism. Fig. 3 is an end elevation of the machine. Fig. 4 is a central section on the line *a—*a** of Fig. 1. Fig. 5 is a plan view of the die-holder. Fig. 6 is a side view thereof. Figs. 7 and 8 are, respectively, left and right hand end views of the die-holder. Fig. 9 is a plan view of the cutting die. Figs. 10 and 11 are sectional views thereof on line *b—*b** of Fig. 9. Fig. 12 is a detail view of the feed-rod guiding means at the left end of the machine.

In the drawings a dieing-out machine, or "dinker" of the ordinary vertically reciprocating cross-head type is shown, said machine comprising a main frame 1, having an upright standard 2 at each end thereof, on which the cutting bed 3 is rigidly mounted, and on the upper ends of which the cross-head 4 is mounted to reciprocate vertically. The constantly driven counter-shaft 5 is arranged in the rear of the machine, and the main shaft 6 is arranged in the base of the machine and is adapted to be rotated by the shaft 5 through a suitable clutch and gear mechanism 7 of any well known form, said mechanism being adapted to be controlled by a foot lever 8, so that when the lever is depressed, said mechanism will connect the shafts 5 and 6. The shaft 6 is connected by a crank 9 to the lower ends of the rods 10, which are adjustably connected at their upper ends to the cross-head 4 by a screw 11, the arrangement being such that, when the shaft 6 is rotated, cross-head 4 will be reciprocated on the uprights 2.

The machine thus far described is well-known in the art and constitutes no part in my invention.

According to my invention I provide a pair of guideways 12 on the under side, or die-engaging face of the cross-head 4, between which a die-holder 13 is mounted to slide with its upper side bearing against said face. Said holder 13 is provided with a pair of lugs 14 on its under side, in which screws 15 are mounted and between which a die 16 is adapted to be clamped, with its

upper end bearing against the under side of the holder, and said holder is also provided with a central longitudinal passage-way 13^a, in which a feed-rod 17 is located. The feed-rod 17 extends approximately the entire length of the cross-head and is mounted to reciprocate in the passageway 13^a, of the holder and in guideways 18 and 19 at the opposite ends of the cross-head. A bell-crank lever 20, having a depending arm 20^a, and an arm 20^b at right angles thereto, is mounted on a pivot 21, supported in a bracket 4^a on the cross-head. The arm 20^a of lever 20 is pivotally connected at its lower end to the adjacent end of the feed rod 17, and the arm 20^b, which extends approximately horizontally, is pivotally connected to the frame by a depending link 22. Said link 22 is pivotally connected at its lower end to a bracket 23, adjustably mounted on a vertical post 24, fixed on the frame, and is provided with a longitudinally extending slot 22^a through which a pin 23^a on the bracket 23 extends, so that a limited longitudinal movement of the link with relation to the bracket is permitted, and the upper end of said link is adjustably connected by a pivot 25 to a block 26, slidably mounted on arm 20^b and adapted to be clamped in different longitudinal positions thereon by means of set screw 26^a, see Figs. 1 and 3.

The die-holder 13 is provided with a pair of flexible clutch plates 27, which are fitted into the passageway 13^a therethrough, so that the rod 17 has a sliding fit between said plates when they are pressed against the sides of said passageway. Said plates 27 are each provided with lugs 27^a at each end, which project laterally to engage the opposite ends of the holder, the distance between the ends 27^a of each plate being slightly greater than the length of the holder, so that a limited longitudinal movement of the plates with relation to the holder is permitted. The upper side of the holder 13 is provided with oppositely disposed recesses 13^c, which lead from the passageway 13^a therein, the longitudinal sides of said recesses being convergently arranged with relation to each other to provide obliquely disposed abutment faces 13^d. A wedging ball 28 is provided between each abutment face 13^d, and the adjacent side of the adjacent clutch plate 27, said balls being arranged to rotate freely therebetween, and being provided with springs 29 which normally press them in the direction of the point of convergency of the faces 13^d and the sides of the plates 27, so that said balls may be firmly wedged therebetween and cause the clutch plates 27 to be pressed firmly against the feed-rod 17, to lock the holder 13 thereto. With this arrangement, when the feed-rod 17 is reciprocated, the frictional engagement of the rod with

plates 27, as the said rod is moved to the left, or toward the point of convergence of the faces 13^d, will cause the plates 27 to be moved slightly in the same direction. The engagement of the plates 27 with the wedging balls 28 will also cause the latter to be rolled a short distance in the same direction, and, as said balls are thus moved, they will become firmly wedged between the plates 27 and the faces 13^d, so that the plates 27 will be sprung or forced into clutching engagement with the rod, and, on further movement of the rod, movement of the holder in the same direction will be caused. When the rod 17 is retracted the plates 27, which are then held in clutching engagement with the rod 17, will be moved a short distance in the opposite direction, causing the balls 28 to be rolled in the opposite direction also to an extent sufficient to release the plate from the rod. To provide means for manually disengaging said plates 27 from the feed-rod 17, a slide 30 is mounted beneath the holder 13, and a pair of vertical pins 31 are mounted on said slide in position to extend into the spaces 13^c, respectively adjacent to balls 28, and at the opposite sides thereof from said springs 29, so that when said slide is drawn to the right, the pins 31 will engage said balls and push them back out of clutching engagement. For convenience in operating said slide 30, a hand lever 32 is provided, which is pivotally mounted on a bolt 33 supported on the right hand end of the holder 13, and is pivotally connected at its rear end to said slide. The opposite end of the slide 30 is provided with a pair of projecting fingers 30^a, which are adapted to engage an abutment on the cross-head, and move back the slide when the holder is fed to the left hand end of the cross-head, so that further feeding movement of the holder is prevented in case the machine has not been previously stopped.

A pair of frictional plates 34 are mounted on rods 34^a in sockets formed therefor in the sides of the holder 13, and springs 35 are provided in the bottoms of said sockets which act to press said friction plates against the guideways, so that the holder is always fed against the friction thus caused, and the holder is thereby prevented from being drawn back by the rod 17 on the return movement of the latter. A hand lever 36 is pivotally mounted on the end of the carrier and links 37 and 38 are connected to said lever at opposite sides of its pivot and to the friction plates 34 respectively, so that when said lever is pulled toward the front said friction plates will be drawn out of engagement with the guideways, see Fig. 7.

The die 16 is provided with a blank-ejecting mechanism which comprises an ejecting finger 40 mounted to swing on a shaft 41, the latter being mounted to oscillate in a

bracket 42 in the upper end of the die, and being extended to provide an operating arm 41^a, which extends obliquely downward at the front side of the die, and has an abrupt bend therein, forming an approximately V-shaped projection 41^b. The rear side of the die is provided with a side opening 16^a, through which a blank cut by the die may be ejected, said finger 40 being arranged opposite the middle of said opening, and springs 43 are connected to the finger 40 and the rear wall of the die, in position to draw said finger toward the opening 16^a. An opening 16^b is also provided in the front side of the die, through which the lower end of the finger 40 may swing when it is swung to its extreme retracted position. A horizontal rod 44 is mounted in brackets 24^a adjustably mounted on the upper ends of the vertical rod 24 and a similar rod 24' is secured on the opposite end of the bed, so that the vertical position of said rod may be adjusted, said rod extending parallel to the cross-head throughout the entire length thereof, and being arranged in front of the front side of the die, and therefore in front of the vertical plane of the shaft 41, in such a position that the springs 43 hold the arm 41^b thereagainst, in all positions of the cross-head.

A clamping-bar 45 is mounted on a pair of arms 46, said arms being rigidly connected to a shaft 47 mounted in brackets 48, at opposite ends of the bed, and a lever 49 is connected to shaft 47, said lever being connected to the foot-lever 8 by a link, or wire 50, having a turn-buckle 50^a therein, to adjust the length thereof, so that when said lever 8 is depressed said clamping bar 45 will be forced into clamping engagement with the sheet or sheets *x*, from which the blanks are to be cut, supported on the bed. A spring 51 is connected to lever 49 and acts to lift the bar 45 from the bed when the foot treadle is released. The bar 45 is provided with brads 45^a which are adapted to penetrate the sheet *x*, and assist in holding the same firmly.

A blank receiver 52 is supported on the shaft 47 and bar 45, said receiver extending the entire length of the bed and being open at its top and arranged in position to receive the blanks ejected from the die 13. The rear end of the receiver is closed by a door 53 which is adapted to be thrown upwardly to permit the receiver, on being tilted, to discharge the blanks into a suitable receiving chute 54 at the rear of the machine.

The operation of the device as thus described is as follows:—A die, as 16, is secured in the holder 13, by the screws 15, as shown in Fig. 6, and the bracket 26 is adjusted to such a position on the arm 20^b that the die will be fed a distance exactly equal to the width of the blank to be cut on each

reciprocation of the cross-head. The sheet from which the blanks are to be cut, having been placed into position on the bed, the lever 8 is depressed, clamping the sheet and starting the machine, and, as long as the treadle is depressed the cross-head will be reciprocated. If more than one sheet is placed on the bed at a time the length of link 50 will be correspondingly increased. As the cross-head is lowered the link 22 will push the arm 20^b upwardly, causing the arm 20^a to be thrown to the right, and drawing the rod 17 back to its extreme right hand position, the link 22, at the same time being pushed downwardly, so that the pin 23^a bears against the upper end of the slot 22^a. The cross-head descends to its lowest position, cutting out a blank, and, as it is raised again, it carries the bell-crank lever 20 upwardly, so that the link 22 will also be drawn upwardly until the lower end of its slot 22^a strikes the pin 23^a. By the time this occurs the die will have been lifted out of engagement with the sheet, so that, on further upward movement of the cross-head, the arm 20^b will be drawn downwardly, throwing the arm 20^a to the left and moving the rod 17 in the same direction. This movement causes the clutch-plates 27 to be slightly moved, until the wedging balls 28 firmly clamp said plates against the feed-rod 17, and then, during the continued upward movement of the cross-head, the die-holder 13 will be moved to the left by said rod, so that when the cross-head reaches its extreme upward position the die will be in position to cut the next blank as closely as possible to the place from which the preceding blank was cut. It will be apparent that the nearer the point of connection of link 22 to pivot of arm 20^b the greater the distance which the holder will be fed, and vice versa. This operation is continued on the successive reciprocations of the cross-head, the die being fed to successive positions entirely across the sheet. As the cross-head descends, the stationary rod 44 is engaged by the arm 41^a, causing the finger 40 to be retracted to a position in front of the stack of blanks, which will have accumulated in the die, as shown in Fig. 10. When the die becomes filled to such an extent that the topmost blank of the stack is raised so that it is above the lower end of the finger 40, and the latter is in the position of Fig. 10, as the die is raised, the arm 41^a is permitted to swing rearwardly to a slight extent, but the projection 41^b, the upper side of which is held nearly vertically, as shown in Fig. 10, prevents the rearward swinging of the finger 40, to a material extent, until the middle portion of said projection is raised above the rod 44, and, as soon as this occurs, the springs 43 are free to swing arm

41^a forward until its straight portion strikes the rod 44, causing the finger 40 to be suddenly swung forward into engagement with the topmost blank, throwing it out of the die, as shown in Fig. 11. As the die is, at this time, being raised rapidly, the blank will be thrown upwardly to an extent, as well as horizontally, and will fall into the receiver 52. When the machine is stopped, the operator pushes the lever 32 to the left, releasing the clutch plates 27 from rod 17 and then he pulls forward the handle 36, releasing the friction plates 34 from the guideways 12 and slides the holder back to the right hand end of the cross-head. The lever 32 is then pushed to the right, so that slide 30 is pushed to the left and the wedging balls 28 are free to perform their functions in the manner already described. The sheet is then drawn forward a distance equal the length of the blank and the treadle is again depressed and the operation above described is repeated. When the sheet has been cut into blanks the receiver 52 is tilted and its door 53 opened and the blanks discharged down the chute 54. It will be observed that the receiver prevents the blanks from falling onto the sheet, and thus interfering with the operation.

In order that the rod 17 may never be moved except when positively actuated, as above described, a spring-pressed friction plate 55 is preferably applied to the left-hand end of the rod, as shown in Fig. 12.

I claim:—

1. In a dieing-out machine having a bed and a vertically reciprocating cross-head, means to hold the die in cutting position beneath the cross-head and to lift the die out of engagement with the bed and automatically move it horizontally a distance corresponding to the width of the blank to be cut upon each reciprocation of the cross-head, and means to vary the horizontal distance which the die is fed.

2. In a dieing-out machine having a bed, a cross-head vertically reciprocal over said bed and having longitudinally extending guideways thereon, a die-holder mounted to slide on said guideways, a feed-rod mounted to reciprocate longitudinally of said guideways and having means for automatically engaging said holder when moved in one direction and adapted to be disengaged therefrom when moved in the opposite direction, and means for reciprocating said rod on each reciprocation of the cross-head.

3. In a dieing-out machine having a bed, a cross-head vertically reciprocal over said bed and having longitudinally extending guideways thereon, a die-holder mounted to slide on said guideways, a feed-rod mounted to reciprocate longitudinally of said guideways and having means for automatically engaging said holder when moved in one di-

rection and adapted to be disengaged therefrom when moved in the opposite direction, means, actuated by the cross-head on each reciprocation thereof, for causing a complete reciprocation of said rod during an intermediate portion of the reciprocation of the cross-head.

4. In a dieing-out machine having a bed, a cross-head vertically reciprocal over said bed and having longitudinally extending guideways thereon, a die-holder mounted to slide on said guideways, a feed-rod mounted to reciprocate longitudinally of said guideways and having means for automatically engaging said holder when moved in one direction and adapted to be disengaged therefrom when moved in the opposite direction, means for reciprocating said rod in unison with the reciprocations of the cross-head and means for varying the length of reciprocations of said rod.

5. In a dieing-out machine having a bed and a vertically reciprocating cross-head over said bed, a die-holder mounted on said cross-head, and movable therebeneath from one end to the other thereof, a feed-rod reciprocally mounted on said cross-head and extending from end to end thereof, means for reciprocating said rod on each reciprocation of the cross-head, and means for automatically connecting said holder and said rod as the latter is moved in one direction and for disconnecting said rod from said holder as it is moved in the other direction, to feed said holder intermittently over the bed.

6. In a dieing-out machine having a bed and a vertically reciprocating cross-head, a die-holder mounted on said cross-head, and means for intermittently feeding said holder longitudinally of said cross-head comprising a longitudinally extending feed-rod, and means for reciprocating said rod including a lever mounted on the cross-head and having one arm operatively connected to said rod, and a link connected at one end to the other arm of said lever and a fixed support to which the other end of said link is connected.

7. In a dieing-out machine having a bed and a vertically reciprocating cross-head, a die-holder mounted on said cross-head, and means for intermittently feeding said holder longitudinally of said cross-head comprising a longitudinally extending feed-rod, and means for reciprocating said rod including a bell-crank lever mounted on the cross-head having one arm operatively connected to said rod, and a fixed support, and means for operatively connecting the same to the other arm of said lever.

8. In a dieing-out machine having a bed and a vertically reciprocating cross-head, a die-holder mounted on said cross-head, and means for intermittently feeding said

holder longitudinally of said head comprising a longitudinally extending feed-rod, and means for reciprocating said rod, including a lever mounted on the cross-head, said lever having one arm operatively connected to said rod, a fixed support, and means for operatively connecting said support to the other arm of said lever at different points, to vary the length of the reciprocations of said rod.

9. In a dieing-out machine having a bed and a vertically reciprocating cross-head, a die-holder mounted on said cross-head, and means for intermittently feeding said holder longitudinally of said head comprising a longitudinally extending feed-rod, and means for reciprocating said rod including a lever mounted on the cross-head and having one arm operatively connected to said rod, and means for engaging the other arm of said lever to cause the same to swing as the cross-head is reciprocated.

10. In a dieing-out machine having a bed and a vertically reciprocating cross-head, a die-holder mounted on said cross-head, and means for intermittently feeding said holder longitudinally of said head comprising a longitudinally extending feed-rod, and means for reciprocating said rod, including a lever mounted on the cross-head and having one arm operatively connected to said rod, and means for engaging the other arm of said lever to cause the same to swing as the cross-head is reciprocated, including a fixed support having a loose connection with the arm to permit the cross-head to be raised a predetermined distance without actuation of said lever.

11. In a machine of the character described, a support and a die-holder movably mounted thereon, means for feeding said holder comprising a feed-rod reciprocally mounted on said support, and means for automatically connecting and disconnecting said rod and said holder on opposite reciprocations of the rod, comprising a laterally yielding clutch plate mounted on said holder at one side of said rod, an abutment face on said holder at the opposite side of said clutch plate from said rod, and a yieldingly actuated wedging device between said plate and said face.

12. In a machine of the character described, a support and a die-holder movably mounted thereon, means for feeding said holder comprising a feed rod reciprocally mounted on said support, and means for automatically connecting and disconnecting said rod and said holder on opposite reciprocations of the rod comprising a laterally yielding clutch plate mounted on said holder at one side of said rod, an abutment face on said holder at the opposite side of said clutch plate from said rod, a wedging-device interposed between said abutment face

and said clutch plate, means for yieldingly forcing said wedging device in one direction to press said clutch plate into clutching engagement with said rod, and means for positively moving said wedging device in the opposite direction to disengage said clutch plate from said rod.

13. In a machine of the character described, a support and a die-holder movably mounted thereon, means for feeding said holder comprising a feed-rod reciprocally mounted on said support, and means for automatically connecting and disconnecting said rod and said holder on opposite reciprocations of the rod, comprising a laterally yielding clutch plate mounted on said holder at one side of said rod, a wedging-device for pressing said clutch plate into clutching engagement with said rod, and means permitting limited longitudinal movement of said clutch plate with relation to said holder to move said wedging device into operative position when said rod is moved in one direction and to move said wedging device into inoperative position when said rod is moved in the opposite direction.

14. In a machine of the character described, a support and a die-holder movably mounted thereon, means for feeding said holder comprising a feed-rod reciprocally mounted on said support, and means for automatically connecting and disconnecting said rod and said holder on opposite reciprocations of the rod, comprising a laterally yielding clutch plate mounted on said holder at one side of said rod, an abutment face on said holder at the opposite side of said clutch plate from said rod, said face and the adjacent face of said plate extending convergently with relation to the direction in which the rod is fed, a spring-pressed wedging device constructed to roll between said faces, and means permitting limited longitudinal movement of said clutch plate with relation to said holder.

15. In a dieing-out machine having a bed and a vertically reciprocating die-holder, a blank cutting die mounted in said holder and having a blank-ejecting arm mounted to swing therein, a controlling arm connected to said ejecting arm, an abutment disposed to engage said controlling arm as the holder descends to move said ejecting arm to a retracted position, and a spring for moving said ejecting arm to eject a blank from the die as the holder is lifted.

16. In a die-cutting machine having a bed and a vertically reciprocating die-holder, a cutting die mounted in said holder and constructed to hold a stack of blanks in the lower portion thereof and open at one side, a blank-ejecting arm, actuating means, including a spring, for swinging said arm to eject a blank from the top of the stack through the open side of the die, means for

moving said arm to a position at one side of the stack as the holder descends and for holding it in this position during the cutting operation, and means for suddenly releasing said arm as the holder is lifted, to permit said spring freely to move said arm to eject a blank.

17. In a dieing-out machine having a bed and a vertically reciprocating cross-head, a cutting die having a blank discharge opening at one side, a blank-ejector mounted in said die opposite said opening, means for intermittently feeding the die longitudinally of the cross-head, blank-ejecting means in said die, and means, extending approximately for the distance which the die is fed, for engaging said ejecting means on each reciprocation of the cross-head to operate the same, substantially as described.

18. In a dieing-out machine having a bed and a vertically reciprocating cross-head, a cutting die having a blank discharge opening at one side, a blank-ejector mounted in said die opposite said opening, means for intermittently feeding the die longitudinally of the cross-head, blank-ejecting means in said die comprising a swinging blank-ejecting arm and a controlling arm connected to said ejecting arm, a stationary engaging-rod extending longitudinally of the cross-head over which said controlling arm extends, in position to engage the same as the cross-head descends to swing said ejecting arm into its initial position, and a spring for forcing said ejecting arm into engagement with a blank to eject the same on the upward movement of the cross-head.

19. In a dieing-out machine having a bed and a vertically reciprocating cross-head, a blank receiver at one side of said cross-head extending approximately throughout the length thereof, a cutting die supported in cutting position from the under side of the cross-head, and having a blank discharge opening at the side next said receiver, means for feeding said die longitudinally of the cross-head on each reciprocation thereof,

blank-ejecting means for said die, and means for operating said ejecting means to discharge a blank through said opening into said receiver on each reciprocation of the cross-head.

20. In a dieing-out machine having a bed and a vertically reciprocating cross-head, a blank-receiver at one side of said cross-head extending approximately throughout the length thereof and supported at a suitable distance above the bed to permit the material from which the blanks are cut to be fed therebeneath, a cutting-die supported in cutting position from the under side of the cross-head, and having a blank-discharge opening at the side next said receiver, means for feeding said die longitudinally of the cross-head on each reciprocation thereof, blank-ejecting means for said die, and means for operating said ejecting means to discharge a blank through said opening into said receiver.

21. In a dieing-out machine having a bed and a vertically reciprocating cross-head above the bed, a die-holder on the cross-head and means for intermittently feeding said holder longitudinally of said cross-head on reciprocation thereof, a work clamping bar extending longitudinally of the bed in the rear of said holder, and means for holding said bar in clamping position while the cross-head is reciprocated and movable to clamp the work onto the bed, power actuated means for reciprocating said cross-head, an operating lever having means for connecting said power actuated means and the cross-head and connections between said lever and said clamping bar for simultaneously controlling said clamping bar and said power actuated means.

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

ARTHUR H. BRADSTREET.

Witnesses:

L. B. HARRIMAN,
H. B. DAVIS.