

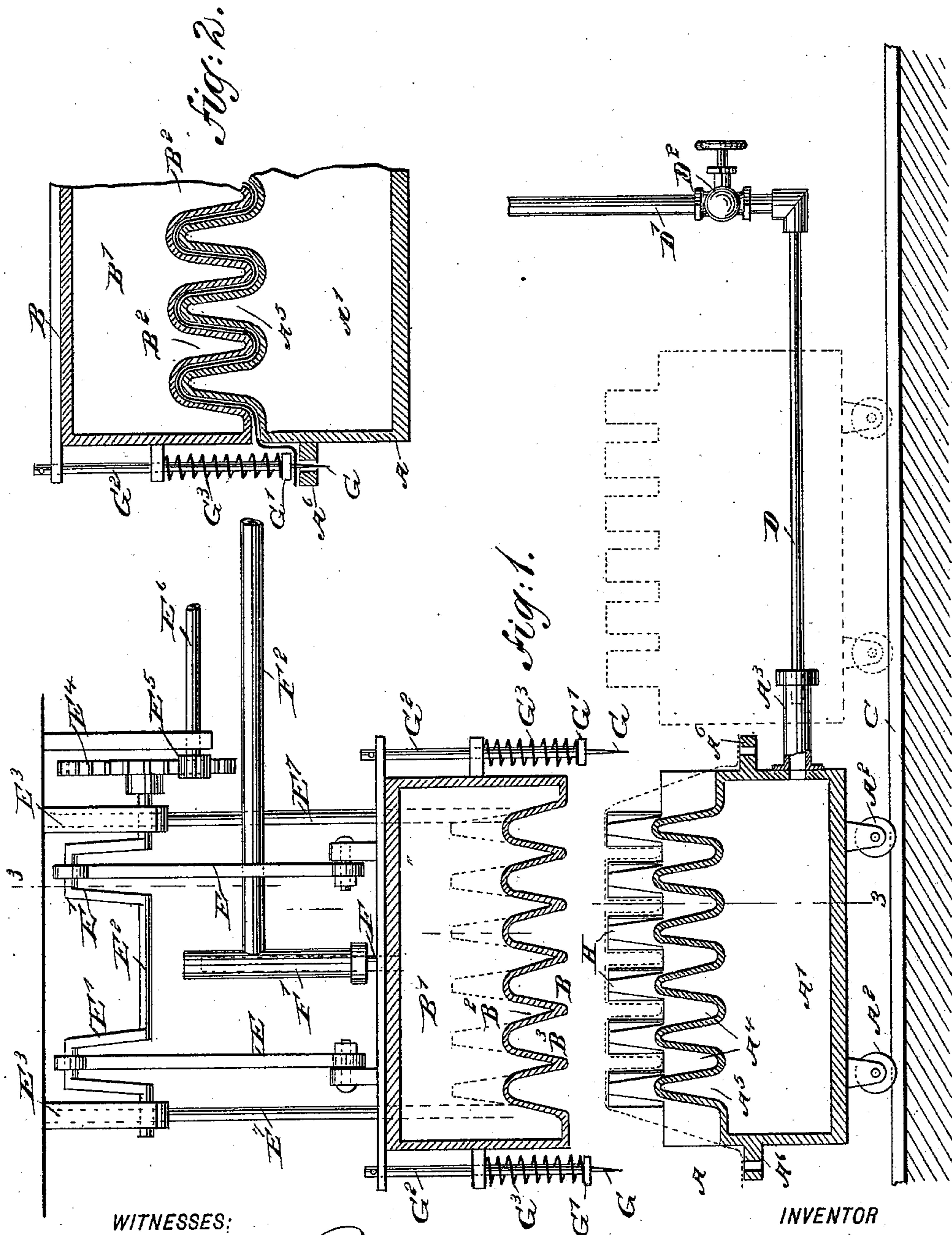
(No Model.)

2 Sheets—Sheet 1.

E. BARSUCK.
MACHINE FOR MAKING DRESS SHIELDS.

No. 539,660.

Patented May 21, 1895.



WITNESSES:

Chas. Nida
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INVENTOR

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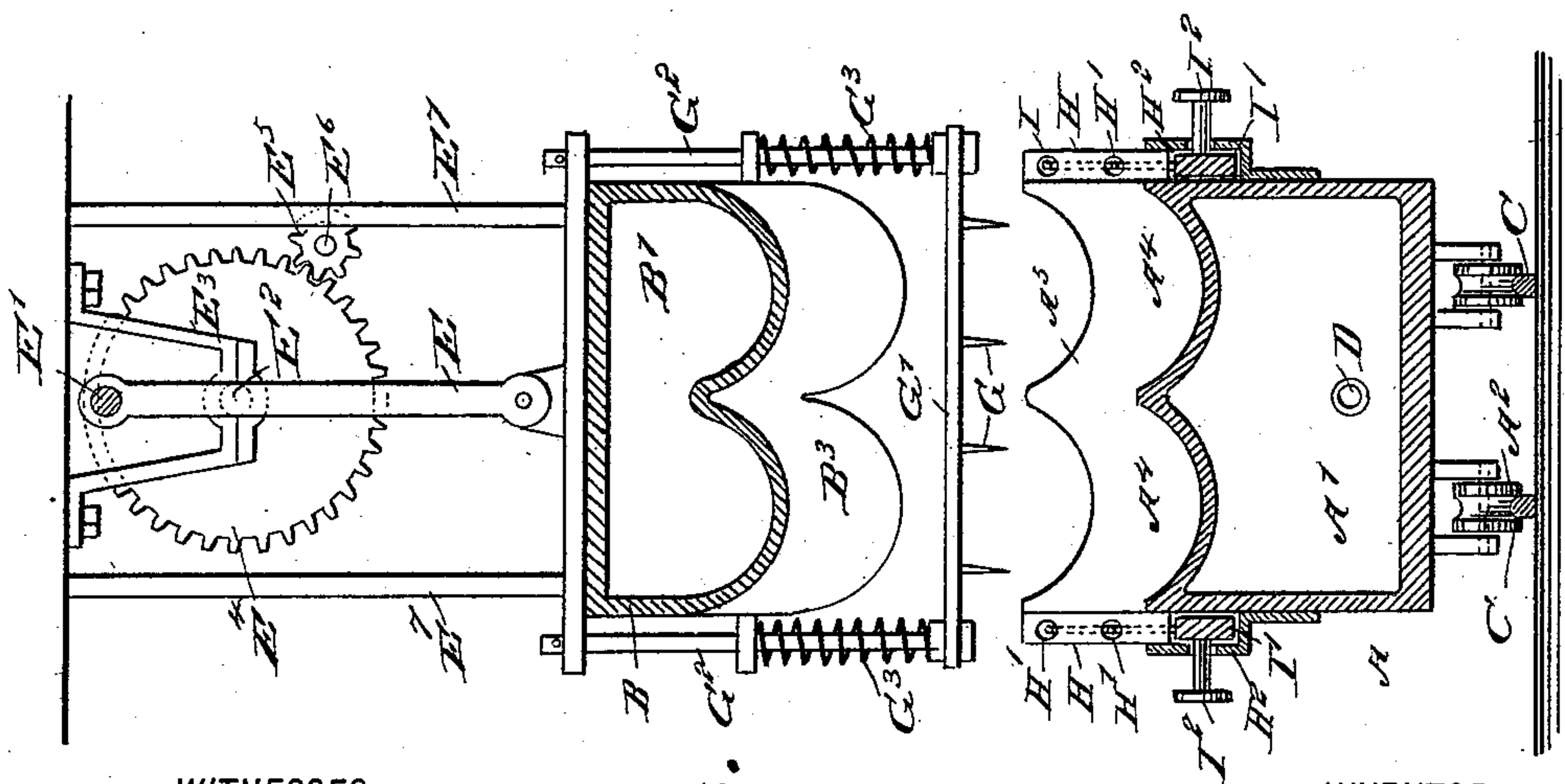
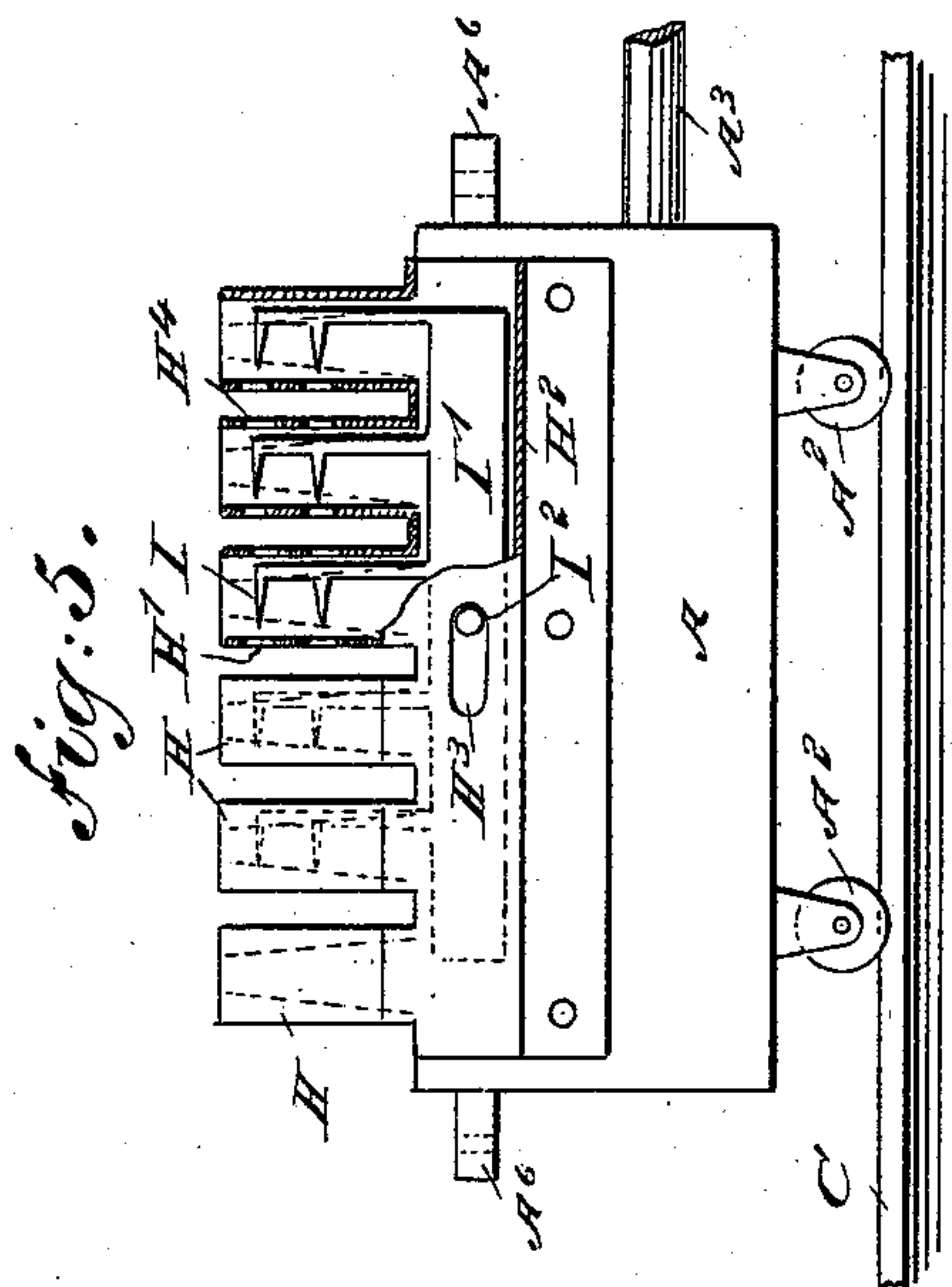
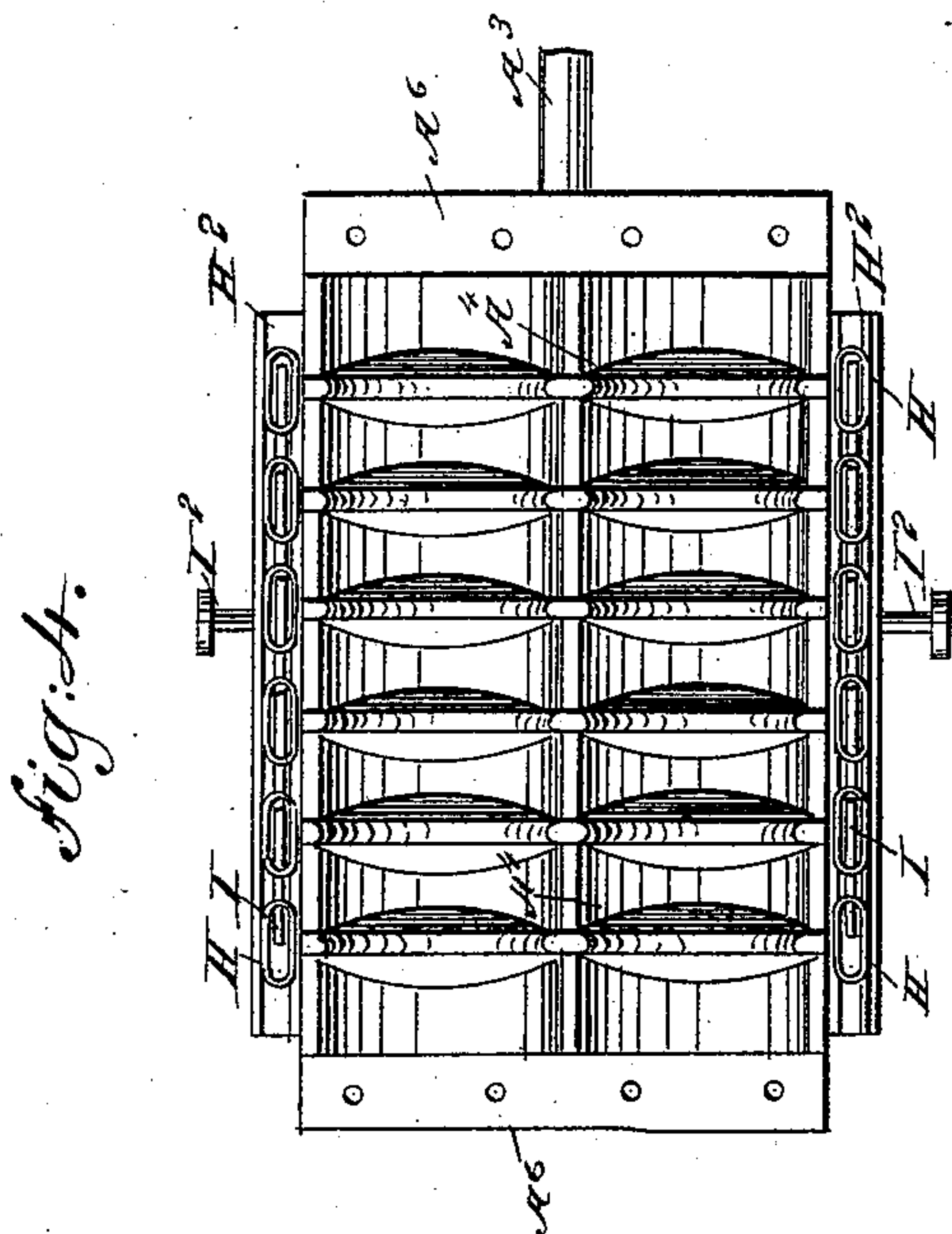
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WITNESSES:

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fig:3.

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UNITED STATES PATENT OFFICE.

EMIL BARSUCK, OF COLLEGE POINT, NEW YORK.

MACHINE FOR MAKING DRESS-SHIELDS.

SPECIFICATION forming part of Letters Patent No. 539,660, dated May 21, 1895.

Application filed January 23, 1895. Serial No. 535,845. (No model.)

To all whom it may concern:

Be it known that I, EMIL BARSUCK, a subject of the Czar of Russia, at present residing at College Point, in the county of Queens and State of New York, have invented a new and Improved Machine for Making Dress-Shields, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in machines for pressing and forming dress shields and has for its object to provide a machine of a simple and inexpensive character, which will present certain features of novelty and advantages for use over other similar machines heretofore employed.

The invention consists mainly in the arrangement of a male and female die, each provided with a heating chamber, one of the dies being adapted for vertical reciprocating movement and the other die being provided with means for moving it bodily in a horizontal direction into and out of position to be engaged by the first mentioned die.

The invention contemplates certain novel features of construction and combinations of parts, all as will be hereinafter fully set forth and carefully defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the improvement with the male die or former in a raised position. Fig. 2 is a similar view of the dies as closed. Fig. 3 is a transverse section of the improvement on the line 3 3 of Fig. 1. Fig. 4 is a plan view of the female die, and Fig. 5 is a side elevation of the same with parts in section.

The improved machine for making dress shields is provided with the female die A, having a heating chamber A', and mounted for longitudinal movement, the said die being adapted to be engaged by a male die or former B, likewise provided with a heating chamber B', but having a vertically reciprocating movement so as to move to and from the said female die A. The latter is provided at its bottom with wheels A² traveling on the rails C, so as to move the female die A from under the male die B at the time the latter is in a raised position, as indicated in Figs. 1 and 3,

to permit of conveniently placing the flexible material to be formed into dress shields on the top of the said female die, and also to remove the finished articles therefrom after pressing, as hereinafter more fully described.

A stuffing box A³ extends from the front end of the chamber A', and in this stuffing box passes a steam pipe D, connected at its outer end with a steam supply pipe D', having a valve D² for controlling the steam passing through the pipe D into the chamber A', to heat the latter.

The top of the die A, which is also the top for the chamber A' and is heated by the steam contained in the latter, is corrugated longitudinally, as plainly shown in Fig. 1, and curved transversely to the shape intended to be given to the dress shield, as will be readily understood by reference to Fig. 3. This curved top of the die A is formed with the transverse recesses A⁴ and hollow projections A⁵, arranged to form the recesses and opening at their inner ends into the chamber A', so that the steam properly heats all the projections and the material pressed over the same. The external recesses A⁴ are adapted to be engaged by transverse projections B² formed on the under side of the male die B, and forming recesses B³ into which extend the projections A⁵. The projections A⁵ are somewhat less in size than the recesses B³, so that a sufficient space is left between the walls for pressing the fabric into the desired shape, that is, the shape of the corrugated top and corresponding bottom of the dies A and B respectively.

The top of the die B is pivotally connected by pitmen E with crank arms E' of a shaft E² journaled in overhead hangers E³ attached to the ceiling or other support. One end of the shaft E² is provided with a gear wheel E⁴, in mesh with a pinion E⁵ secured on a shaft E⁶ connected with suitable machinery for imparting a rotary motion to the said shaft E⁶, to cause a reciprocating movement of the die B by the pitmen E, crank arms E' and shaft E² driven from the shaft E⁶. The die B is guided in its up and down movement on suitable guide rods E⁷.

In order to connect the interior of the chamber B' with the steam supply, a pipe F extends from the die B into a sleeve F' con-

connected with a pipe F^2 leading to a boiler or other steam supply, similarly to the pipe D' , so that steam can pass through the pipe F^2 , sleeve F' and pipe F to the interior of the die B, to properly heat the latter. As the pipe F can slide in the sleeve F' , connection with the steam supply is at all times accomplished whether the die is at a standstill or moves up and down.

In order to hold the ends of the fabric placed over the die A in position during the pressing operation, I provide the ends of the die A with apertured projections A^6 , the apertures of which are adapted to be engaged by pins G depending from transverse bars G' supported on rods G^2 , fitted to slide vertically in suitable bearings arranged on the male die B. The transverse bars G' are held in a lowermost position by springs G^3 coiled on guide rods G^2 , so that when the die B is lowered upon the die A, then the pins G pass through the material extending over the apertured projections A^6 , to then pass into the apertures of the projections A^6 , with the cross bar G' resting on the transverse projections A^6 , thus clamping the ends of the material between the lugs A^6 and bars G' . As the die B descends, the springs G^3 are compressed so that the bars G' are firmly pressed in contact with the top of the fabric, to securely hold the latter in place.

In order to hold the sides of the fabric in proper position during the pressing operation, I provide each side of the die A with a series of small housings H , arranged in alignment with the transverse hollow projections A^5 in the top of the die A, so that the spaces between the housings are in alignment with the transverse recesses A^4 . In each housing H is arranged a pin I , having two points, and secured at its lower end on a bar I' fitted to slide longitudinally in a channel H^2 formed in the bottom of the housings H , as plainly illustrated in Fig. 5. The points of the pins I , are adapted to pass through openings H' in the sides of the housings, to engage the material passing between the housings. The bar I' is provided with a knob I^2 extending transversely through an elongated slot H^3 in the front of the channel H^2 . Now by the operator taking hold of this knob I^2 , he can shift each bar I' longitudinally to move the points of the pins simultaneously through the apertures H' into engagement with the fabric, to securely lock the sides thereof in position on the female die. The points of the pins I are sufficiently long to extend into openings H^4 in the opposite side of the next adjacent housing H , to prevent the fabric from being accidentally disengaged by slipping off the points.

The operation is as follows: When the male die B is in a raised position, as shown in Fig. 1, then the female die A can be moved to one side by the wheels A^2 traveling along the rails C , the die then taking the position indicated in dotted lines in Fig. 1. The operator can now place the material for forming the dress

shields over the top of the die A, pressing with the fingers or other means the material in position in the recesses A^4 and over the projections A^5 . When this has been done the die A is moved back under the die B, and the knobs I^2 are moved sidewise to engage the sides of the fabric extending between the housings H by the points of the pins I , to lock the sides in place. The male die B is now permitted to descend, and in doing so the pins G engage the ends of the fabric at the apertured lugs A^6 as previously explained, before the under side of the die firmly presses the fabric over the top of the female die. As the male die B moves into position over the female die A, the projections B^2 press the material firmly into position in the recesses A^4 , and the projections A^5 press the material into position in the recesses B^3 , so that the fabric is pressed perfectly into shape to form a series of dress shields at a time. The dies remain in contact for a suitable length of time to permit the heated contacting parts to firmly shape the material into shields. When this has been done the die B is raised, the die A is run from under the die B, and then the bars I' are moved to disengage the pins from the sides of the fabric to permit of removing the pressed material from the die A. The pressed material is now cut transversely to form the individual shields.

By the apparatus shown six dress shields are formed at one pressing operation, but by increasing or decreasing the number of projections and recesses in the top and bottom of the dies A and B, any desired number of dress shields may be formed at one pressing operation.

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

1. In a machine for forming dress shields, the combination of two dies having corresponding die faces, means for imparting reciprocatory movement in one direction to one of the dies to bring the die faces in contact with one another, and means for imparting reciprocatory movement to one of said dies in a different direction to move the said die bodily out of position to be engaged by the other die, substantially as set forth.

2. In a machine for forming dress shields, the combination of vertical guides, a die mounted to move therein and provided with means for imparting thereto reciprocatory movements in a vertical plane, said die having a die face on its lower side, and a second die having a die face on its upper side to be engaged by the die face on the first mentioned die, said second die being provided with means for imparting thereto reciprocatory movements to move said die bodily in a horizontal plane into and out of alignment with the vertically moving die, substantially as set forth.

3. In a machine for forming dress shields and the like, the combination of two dies having corresponding die faces, means for im-

parting reciprocatory movements to one of said dies to move said die bodily in one direction to bring the die faces into contact, said reciprocating die being provided with means
5 for engaging and holding the side portions of the material to be pressed before the same is engaged by the dies, substantially as set forth.

10 4. A machine for making dress shields, comprising a female die, a series of housings on the sides of the said die, and pins fitted to slide in the said housings and adapted to pass through openings therein to engage the sides of the fabric passing between the housings, substantially as shown and described.

5. A machine for making dress shields, comprising a female die, a series of housings on the sides of the said die, pins fitted to slide in the said housings and adapted to pass through openings therein to engage the sides of the fabric passing between the housings, and
20 means, substantially as described, for moving the said pins on each side simultaneously into or out of contact with the material, as set forth.

EMIL BARSUCK.

Witnesses:

MORIS LELENKOW,
MORETZ RABINOVITCH.