

(No Model.)

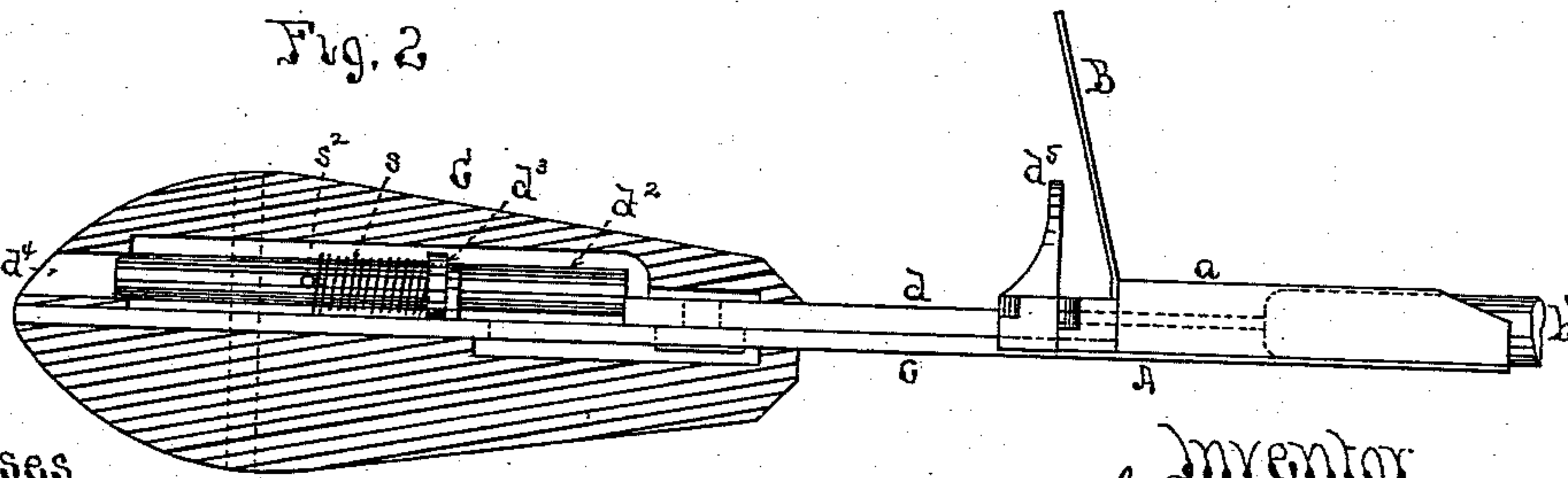
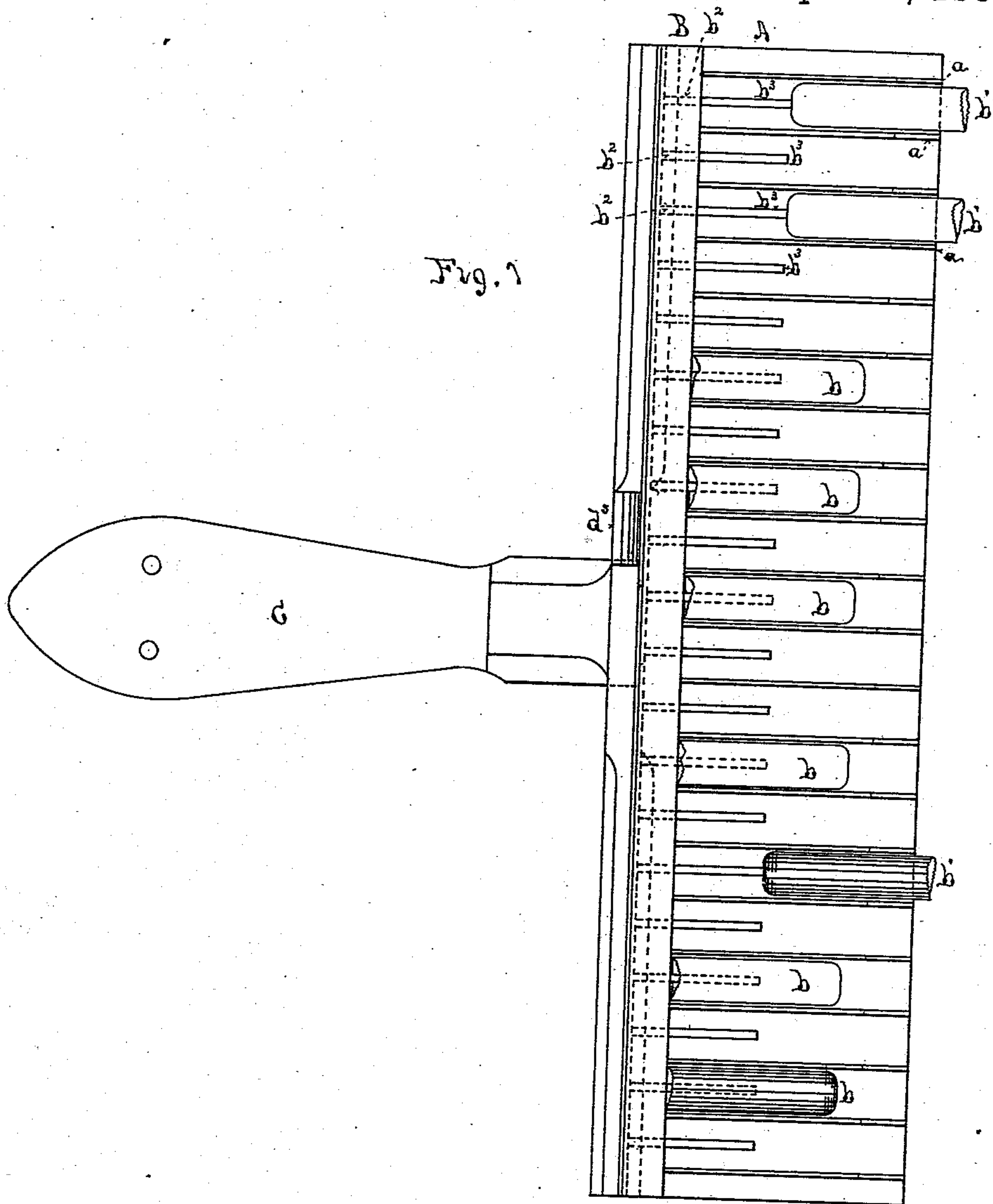
J. A. MAC DONALD.

2 Sheets—Sheet 1.

MACHINE FOR FEEDING CARTRIDGE SHELLS.

No. 305,087.

Patented Sept. 16, 1884.



Witnesses

Wm. B. Brown
N. P. Ockington

Inventor

John A. Mac Donald
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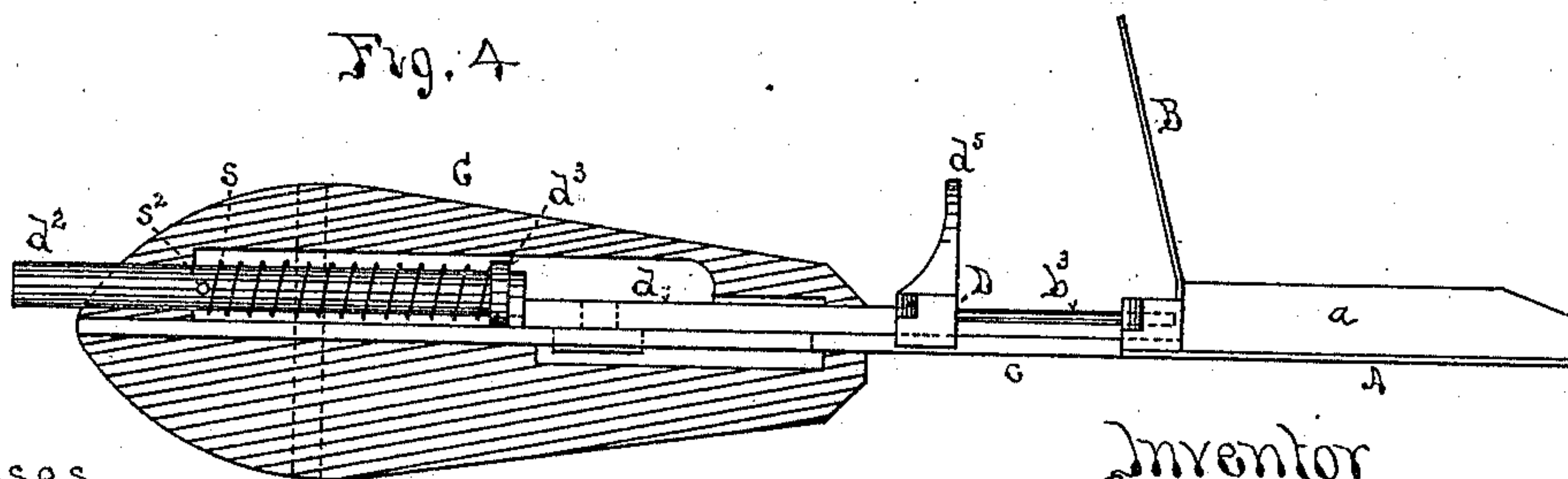
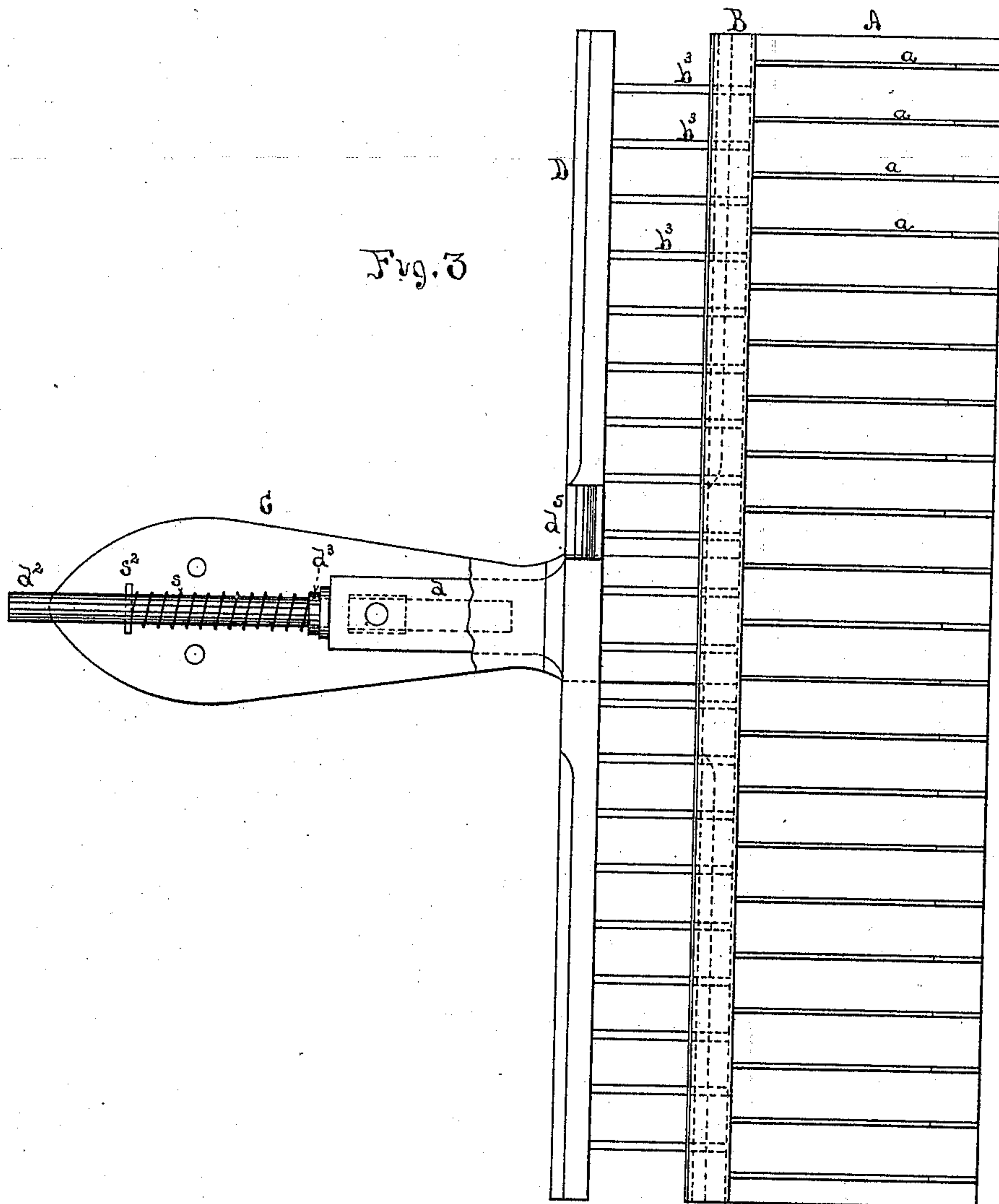
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UNITED STATES PATENT OFFICE.

JOHN A. MACDONALD, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO THE
UNITED STATES CARTRIDGE COMPANY, OF SAME PLACE.

MACHINE FOR FEEDING CARTRIDGE-SHELLS.

SPECIFICATION forming part of Letters Patent No. 305,087, dated September 16, 1884.

Application filed December 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. MACDONALD, of Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Machines for Feeding Cartridge-Shells, of which the following is a specification.

My invention relates to machines for feeding cartridge-shells to other machines in the same relative position or direction as to their open and closed ends with relation to each other; and it consists in the combinations of mechanisms for arranging said cartridge-shells in such position for feeding to other machines, substantially as hereinafter described.

In the drawings, Figure 1 is a top view of the device constructed according to my invention. Fig. 2 is a vertical central section of Fig. 1. Fig. 3 is a top view with the parts in a different position and the handle part in section to show the working parts. Fig. 4 is a vertical central section of Fig. 3.

A is a flat plate of metal forming the bottom part of the machine, upon which are secured a number of partitions, *a a*, of just the proper distance apart to receive a cartridge-shell between them.

B is a second metallic plate, attached at the lower edge to the plate A, and to the ends of the partitions *a a*.

C is the handle part of the machine, intended to be grasped in the hand, and the spaces between two of the partitions *a a*. The plate A and plate B thus form small scoops for shoveling up the cartridge-shells out of the pile, each scoop receiving one cartridge-shell, which may be so received either with the closed end toward the plate B or with the open end toward that plate.

b b' represent a number of cartridge-shells so scooped up and lying in the different compartments of the machine. Centrally opposite to each compartment or scoop through the plate B are a series of holes, *b²*, of just sufficient size to receive pins *b³*, which fit said holes and are long enough to project through them to a considerable distance toward the outer or open end of each scoop. These pins *b³* are all attached to a bar, D, which is parallel with the plate B, and is attached by a metallic piece, *d*, to a piston, *d²*, which plays back

and forth within the handle through the collar *d³* and guide-hole *d⁴*. The handle C is attached to plate A by a bar, *c*, underneath the piece *d*, and the lower side of the bar D is grooved so as to receive this bar *c*, and slides upon the latter to and from the handle C. A spring, *s*, serves to hold this bar D back toward the handle C far enough to withdraw the pins *b³* from the scoops by bearing against the collar *d³* and the cross-pin *s²* within the handle, substantially as shown. A thumb-piece, *d⁵*, attached to the bar D, enables the person holding the machine to slide the bar D forward toward the plate B, thereby projecting the pins *b³* forward into the scoops or compartments, as shown in Figs. 1 and 2, while by releasing the bar D it flies back and withdraws the pins, as shown in Figs. 3 and 4.

The machine is operated as follows: It is grasped by the handle, and while the parts are in the position shown in Figs. 3 and 4 is thrust into a pile of cartridge-shells and slightly shaken by the hand, which causes a number of shells to fall down into the different scoops or compartments between the partitions *a a*, as shown in Figs. 1 and 2. By pressing with the thumb upon the thumb-piece *d⁵* the bar D is pressed forward against the plate B, and the pins *b³* are thrust into the different scoops or compartments, as shown in Figs. 1 and 2. If the cartridge-shells are in the compartments or scoops with their closed ends toward the plate B, as represented by *b'*, they are thrust out or partially out of the scoop by the pins coming against their closed ends, while if their open ends are toward the plate B the pins enter the cavities in the shells and hold them in place in the scoops, in which position the machine may be inverted and all the shells held in it and all shells *b'* thrown out. By then placing the machine right-side up and raising the handle C, all the shells *b* will slide out upon the table with their closed ends in the same direction, when they may be pushed forward by hand or any suitable feeding device into a machine, by which they are to be further operated upon. As an average of fifty per cent. of the cartridge-shells will be caught by the pins, and held in the scoops in the same direction as described, and thus arranged with certainty, with their closed ends in the same

direction, it is evident that the machine effects a great saving over placing them by hand in like position.

What I claim as new and of my invention is—

1. The combination of plate A, partitions *a a*, and plate B, forming a scoop, with a sliding pin adapted to traverse to and fro through the plate B longitudinally of the scoop, substantially as described.

2. The combination of two or more scoops formed by the plate A, partitions *a a a*, and plate B, with two or more sliding pins, *b³ b³*, adapted to traverse to and fro simultaneously through the plate B and longitudinally of the scoops, substantially as described.

3. In combination with two or more scoops formed of the plate A, partitions *a a a*, and plate B, the pins *b³ b³*, adapted to slide longi-

tudinally of said scoops, the bar D, and handle C, substantially as described.

4. In combination with the plate A, partitions *a a*, plate B, pins *b³*, and bar D, the sliding guide-bolt *d²* and handle C, substantially as described.

5. In combination with the handle C, the sliding guide-bolt *d²*, retractile spring *s*, bar D, and pins *b³ b³*, arranged to traverse to and fro in two or more cartridge-shell scoops, substantially as described.

6. In combination with the bar D and pins *b³ b³*, the thumb-piece *d⁵*, substantially as described.

JOHN A. MACDONALD.

Witnesses:

A. W. DAVID;

CHAS. A. K. DIMORE.