

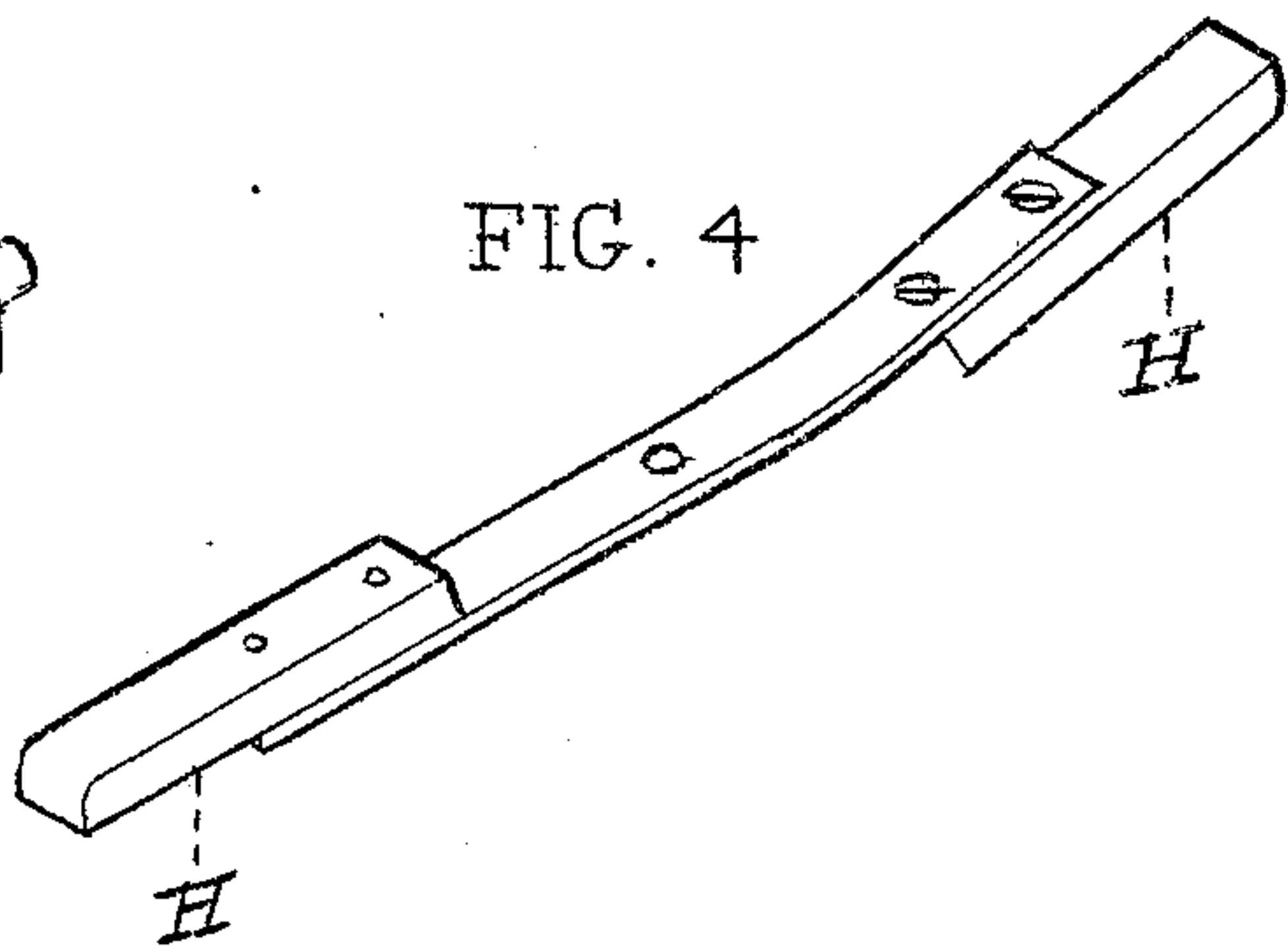
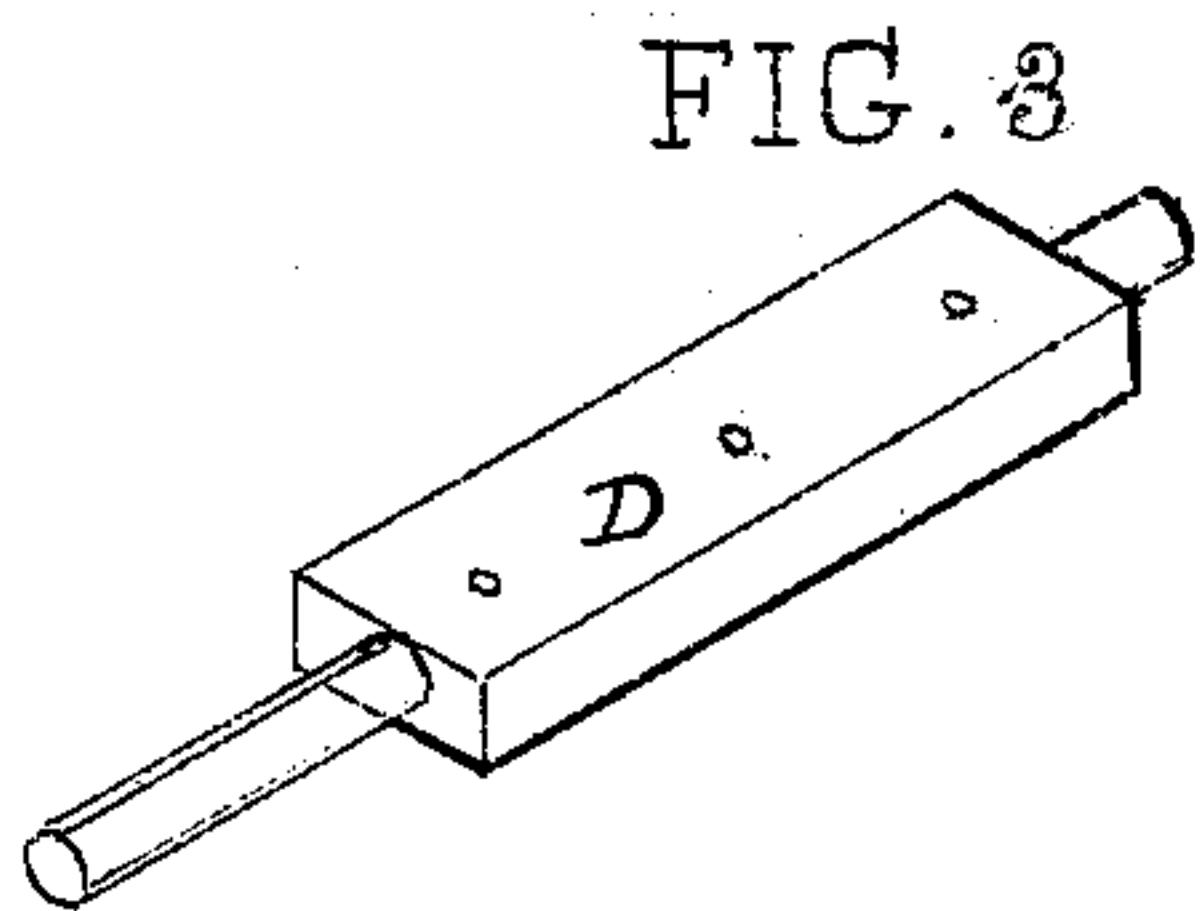
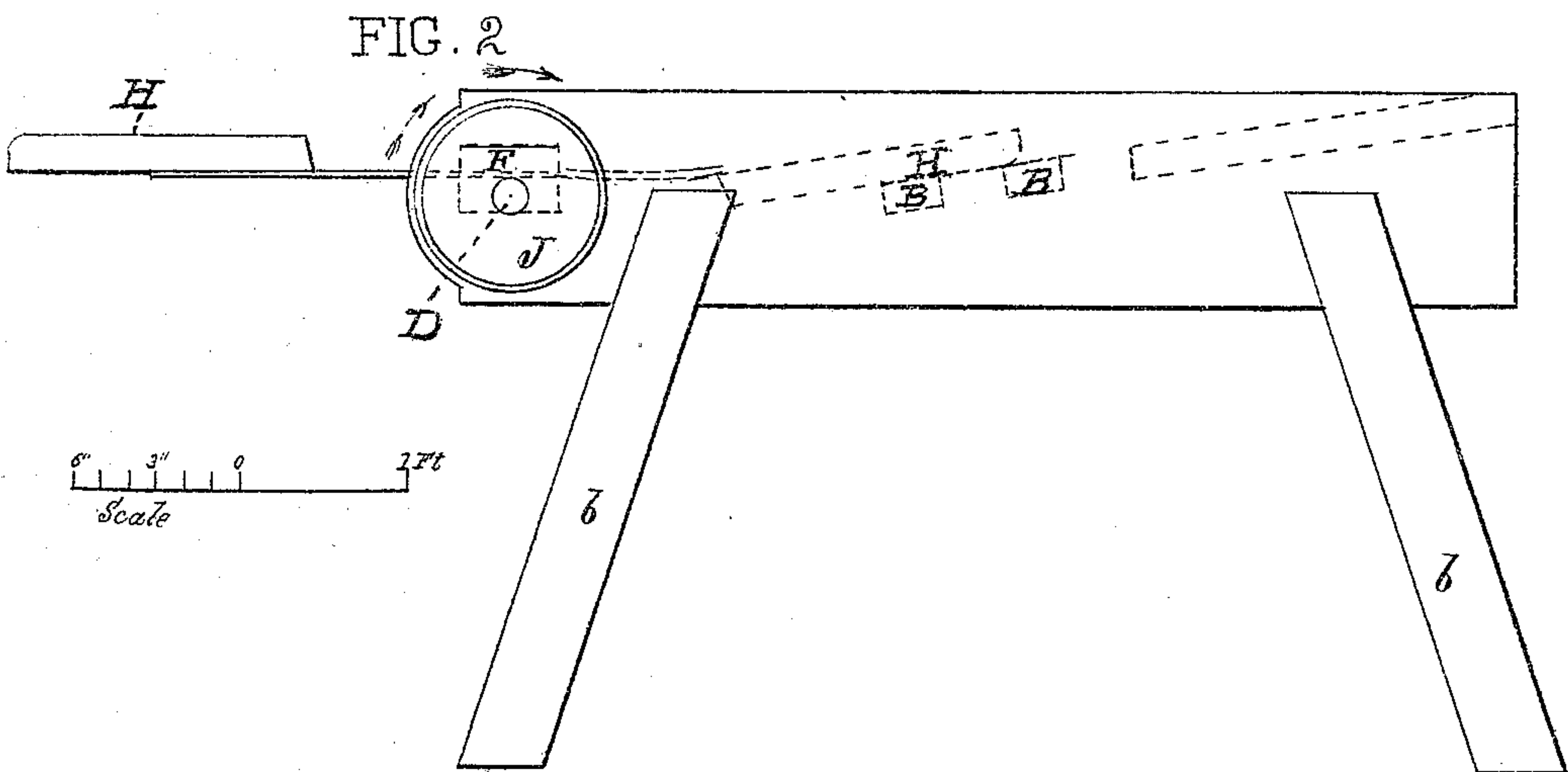
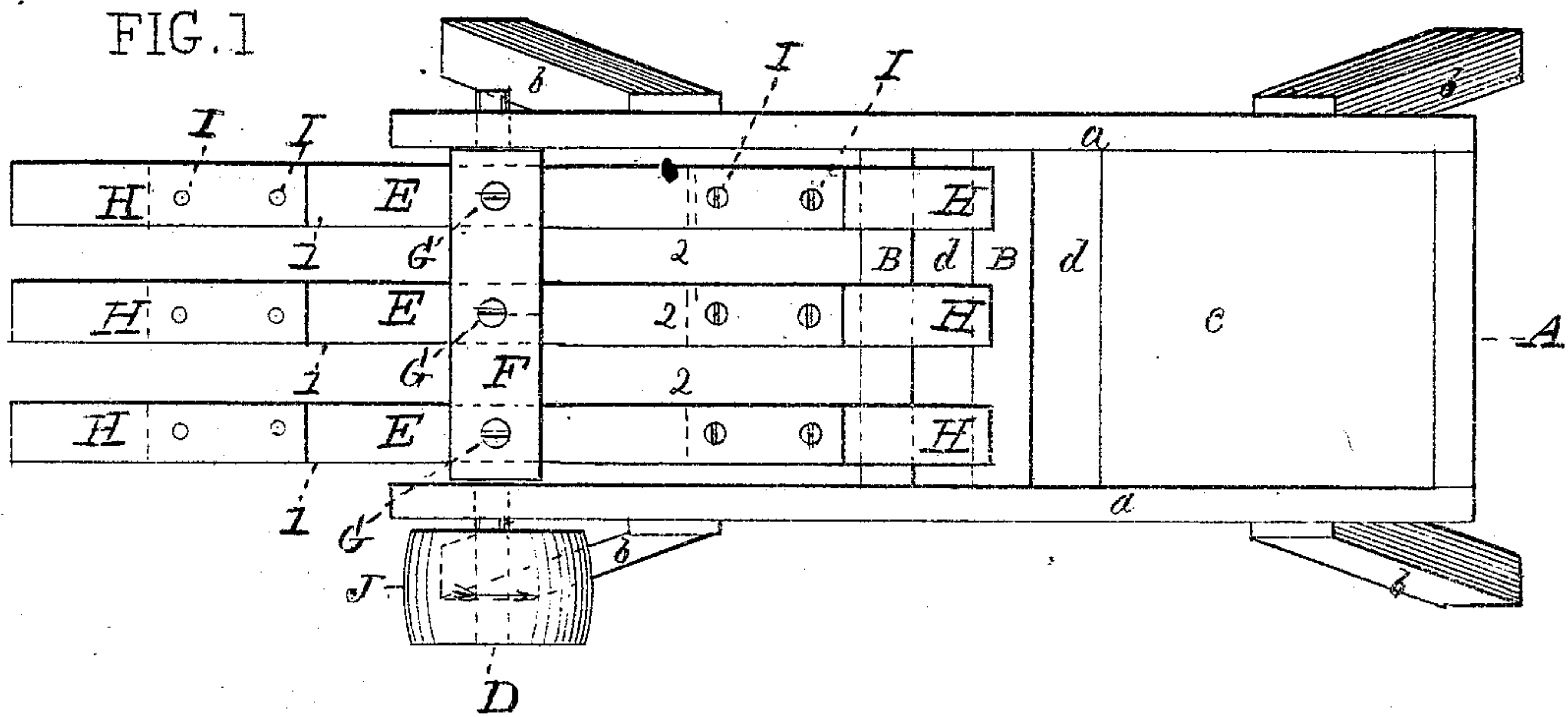
(159.)

ROBERT S. WILLIAMS.

Improvement in Threshing Machines.

No. 121,739.

Patented Dec. 12, 1871.



WITNESSES.

Thomas J. Bewley.
Isaac P. Wendell.

INVENTOR.

Robert S. Williams
by his atty. Stephen Ustick

UNITED STATES PATENT OFFICE.

ROBERT S. WILLIAMS, OF NORRISTOWN, PENNSYLVANIA.

IMPROVEMENT IN THRASHING-MACHINES.

Specification forming part of Letters Patent No. 121,739, dated December 12, 1871.

To all whom it may concern:

Be it known that I, ROBERT S. WILLIAMS, of Norristown, in the county of Montgomery and State of Pennsylvania, have invented certain Improvements in Thrashing-Machines, of which the following is a specification:

The nature of the invention consists in the connection of springs with a revolving shaft and with beaters or flails, the middle of the springs being rigidly confined to the shaft and the inner ends of the beaters to the ends of the springs, and the several parts being so arranged in relation to the bed of the machine that, in the revolution of the shaft, the beaters shall strike the grain-heads flatly and have a drawing motion off the same, as hereinafter described, so as not to injure the straw.

Figure 1 is a plan view of the machine. Fig. 2 is a side elevation of the same. Fig. 3 is an isometrical view of the shaft D. Fig. 4 is a like view of one of the springs, E, and beaters H.

Like letters in all the figures indicate the same parts.

A is a trough, in which the grain is placed to be thrashed. For simplicity and cheapness I usually make the sides *a a* of the trough of inch boards and confine the legs *b* to the same. I make the front of the bed *c*, on which the beaters strike, of slats B, leaving open spaces *d* for the chaff to pass through. D is a revolving shaft whose journals turn in the side pieces *a a*. The middle portion of the shaft is flat, as represented in Fig. 3. There are steel springs E E E, which are confined to one side of the shaft by means of the cap-plate F and screws G. On the ends of the springs are confined beaters H H by means of

screws I. One of the springs provided with beaters is represented detached from the shaft in Fig. 4. The beaters should strike the grain flat, or nearly so. The bottom of the trough may be arranged at the proper angle, as shown in Fig. 2, to admit of the beaters on the straight end 1 of the springs striking the grain flatly. To bring the beaters on the other end of the springs flat on the grain the ends 2 have to be curved, as represented in the drawing. J is a pulley on one end of the shaft D, which is connected with the motive-power by means of a belt.

The driving-shaft D being revolved in the direction of the arrows, the beaters H give a flat blow to the heads of the grain and draw off the same as they pass below the line of the bottom of the trough, the springs E bending sufficiently to admit of the free motion of the beaters. By this drawing of the beaters the kernels are loosed in the heads with great facility, and the straw is not broken, thereby enhancing its value.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the shaft D, springs E, and beaters H, when the middle parts of the springs are rigidly connected with the shaft and the ends of the former have a like connection with the inner ends of the beaters, substantially in the manner and for the purpose set forth.

In testimony that the above is my invention I have hereunto set my hand and affixed my seal this 12th day of August, 1871.

ROBERT S. WILLIAMS. [L. S.]

Witnesses:

THOMAS J. BEWLEY,
STEPHEN USTICK.

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