

H. C. MOORE.

2 Sheets—Sheet 1.

Peat Machine.

No. 64,553.

Patented May 7, 1867.

Fig. 1

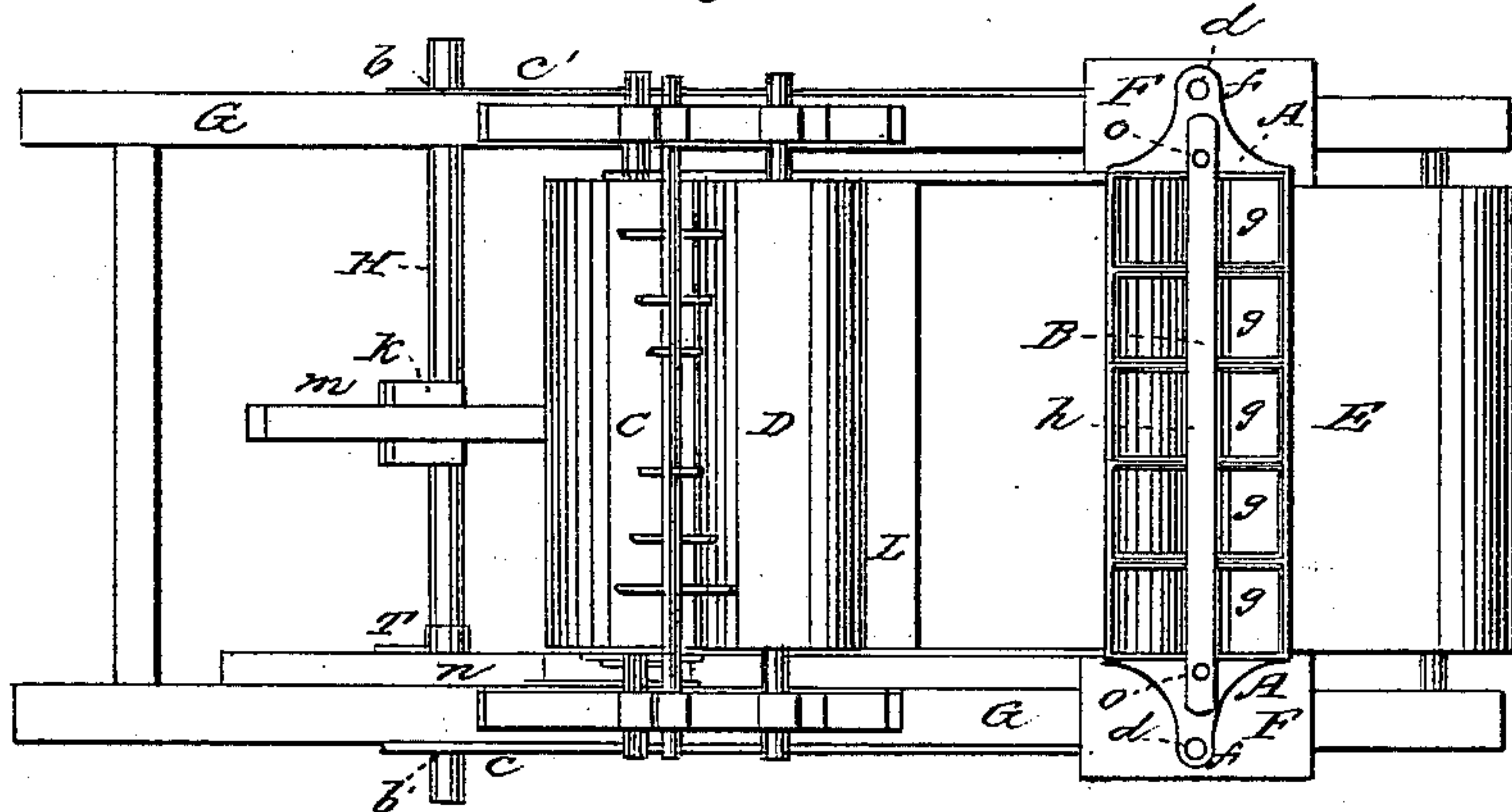
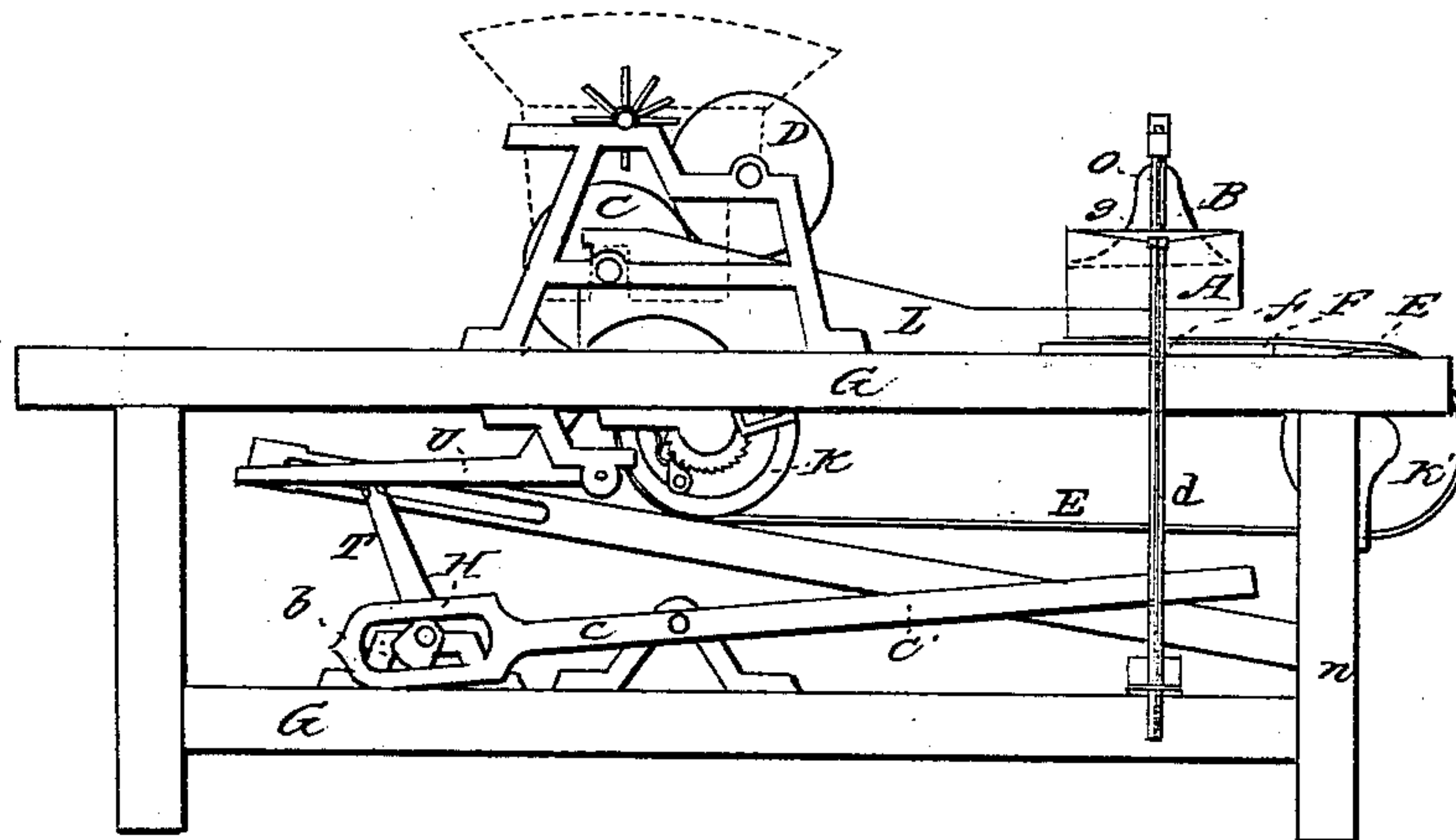


Fig. 2



Witnesses:

J. R. Smittle
John F. Jones

Inventor:

H. C. Moore
by Gordon & Co. Attys

H. C. MOORE.

Peat Machine.

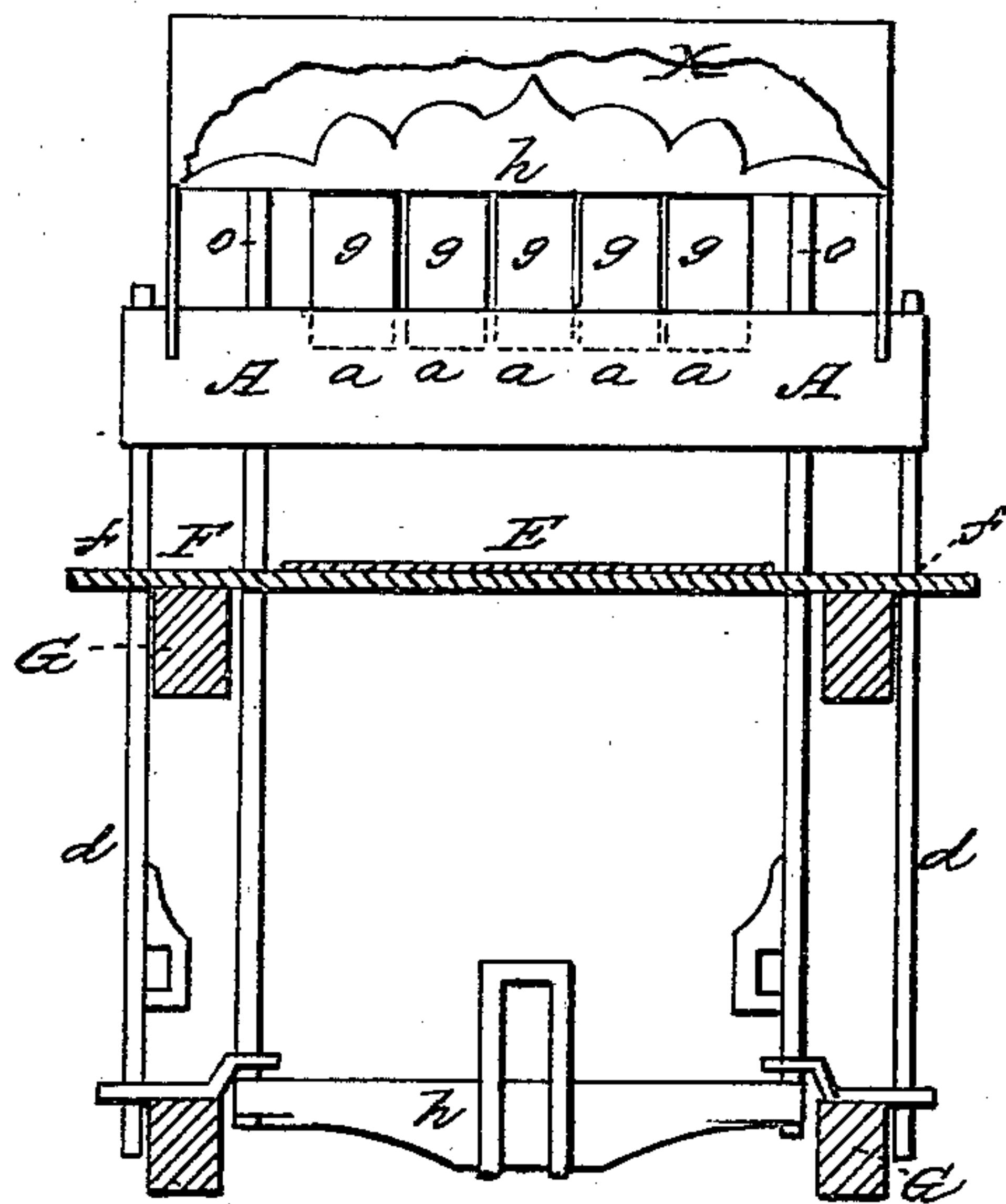
2 Sheets—Sheet 2.

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Patented May 7, 1867.



Fig. 3



Witnesses:

J. R. Smith
John F. Jones

Inventor:

H. C. Moore
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United States Patent Office.

H. C. MOORE, OF SPRINGFIELD, MASSACHUSETTS.

Letters Patent No. 64,553, dated May 7, 1867; antedated March 26, 1867.

IMPROVED PEAT MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, H. C. MOORE, of Springfield, Hampden county, Commonwealth of Massachusetts, have invented a new and improved Peat Machine; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to letters of reference marked thereon. In the drawings—

Figure 1 is a plan; and

Figure 2, a side view of the machine herein described.

Figure 3 is an end view of the press; and

Figure 4 shows the steam-valve hereafter described.

My invention consists of an improved arrangement of grinding-rolls for reducing the peat taken from the bog to the proper consistency, in connection with a die and press for cutting the ground peat into the proper shape and pressing the same into compact blocks; also in mechanism for actuating the press and die and for conveying the peat from the grinding-rolls to the press and die.

In general construction my machine consists of a die, A, peculiarly arranged, in combination with a press, B, as before mentioned, which receives the peat from the grinding-rolls C D by means of an endless belt, E, and cuts and presses it upon the plate F provided for the purpose upon the top of the frame G, which supports and contains the mechanism for operating these parts. I will first describe the construction of the die A and press B.

The die consists of a rectangular box without top or bottom, and divided into compartments by the partitions *a a a*, &c., placed across the machine, and having a vertical reciprocating motion derived from the shaft H, by means of the cams *b b'* and slotted lever *c c'* at each side, which work the die by means of the connections *d d'*, working in guides *f f'* in the plate F, and attached to the lower part of the frame. The press consists of a number of plungers, *g g g*, &c., attached together by means of the part *h*, which work in the several parts *a a a*, &c., of the die, the whole being operated from the shaft H by means of the crank *k* and slotted lever *m* attached to the lower part of the frame G at *n*, for a fulcrum, and also attached to a frame formed of the top and bottom cross-pieces *h h'* of the press, and the side connections *o o'*, which work in guides in a similar situation to those of the die.

Underneath the die and press is placed the plate F, and over its upper surface runs the endless belt E, which also passes under the grinding-rolls C D, and around the drums K K', running in boxes attached to the under side of the upper part of the frame G. These grinding-rolls C D receive the peat from a hopper placed above them, and prepare it for the press. They are hollow, for the purpose of containing steam, which keeps them hot and dries out a great part of the moisture from the peat as it passes through. The box L, through which the peat passes after being ground, regulates the form of the mass received under the press and die. The band-drum K is operated by means of a ratchet motion driven by a cam, T, on the shaft H. The steam I intend using for the purpose of heating my grinding-rolls is the exhaust of the engine used to drive the machine. In order to retain this steam within the rolls I provide the valve shown at fig. 4 at the point where the hollow shaft joins with an exhaust pipe to convey off the steam. This valve is so arranged that at every revolution of the rolls the opening X in the stationary pipe comes in line with the opening X' in the revolving part, and thus the steam escapes. It is intended that one of these grinding-rolls, the upper, shall run at a larger speed than the under roll, and for this reason the aperture for letting out steam should be proportionally smaller.

The operation of this machine is as follows: The peat taken from the meadow is fed into a hopper above the rollers C D, where it is fed into the grinding-rolls by means of the shaft M; here it is thoroughly ground, and also partially dried by heat from the steam contained in the rolls. The mass in a plastic state then passes down upon the band, and is carried forward under the die and press, the box L regulating the form of the mass. It then passes under the die, and is cut into blocks of the required shape. The press is brought down upon these blocks, while they are confined within the die; both die and press then lift up, and thus throw the blocks out of the die and allow them to pass along, and they are carried away from the machine. The manner of operating the press by means of the slotted lever *m* and crank *k* renders the working of the press sure, and the pressure obtained very powerful, and the general arrangement of the machine is simple and compact. In order that the peat under process of pressing and forming should be kept as long as possible under the action of

steam, thus rendering it more easily worked, and also drying it, I place over the die A a cap or box, X, which is made sufficiently large not to interfere with the working of the press within the die, and which fits close around the sides of the die. This is shown in fig. 3. Steam is introduced into this box X, acting on the peat as it is pressed and formed, and keeping the die and plungers hot. It also keeps the plate F, which may of itself be enclosed, hot, so that the peat is subjected on all sides to the action of heat.

I do not wish to confine myself to the peculiar form of die herein shown, as other forms may be used if desired. And now, having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the die and press so as to co-operate with each other to cut, press, and shape the peat to the desired form, substantially as herein set forth.
2. The combination of the endless belt E and plate F with the die A and press B, the parts arranged so as to operate automatically, substantially as and for the purpose herein described.
3. I claim the arrangement of the box L for the peat to pass through, so formed as to gauge the amount passing through to the proper height for the movement of the die, substantially as set forth.
4. I claim, for the purpose of moving the press A, the arrangement of the slotted lever *m* and crank *k* on the shaft H, substantially as set forth.
5. For the purpose of moving the die, the combination of the slotted levers *c c'* and cams *b b'*, upon the shaft H.
6. I claim operating the drum K by the ratchet motion, arranged and operated by means of the lever *n* and cam T upon the shaft H, substantially as herein set forth.
7. I claim in a peat machine the combination of rolls for grinding, and endless belt for conveying the peat, and die and press for shaping and compressing the same, substantially as herein described.
8. I claim the arrangement of the openings X X', as described, for the purpose of letting out the steam confined within the rolls intermittently.
9. The box or cap X, in combination with the die A, for the purpose of holding the steam used for warming the die and peat operated by it, substantially as herein described.
10. I claim warming the die A and plate F upon which the peat is pressed and formed, by means of steam or hot air, substantially as set forth.

Witnesses:

J. B. GARDINER,
EDW'D H. HYDE.

H. C. MOORE.