J. A. STOCUM.

Hay-Stove.

No. 217,651. Patented July 15, 1879.

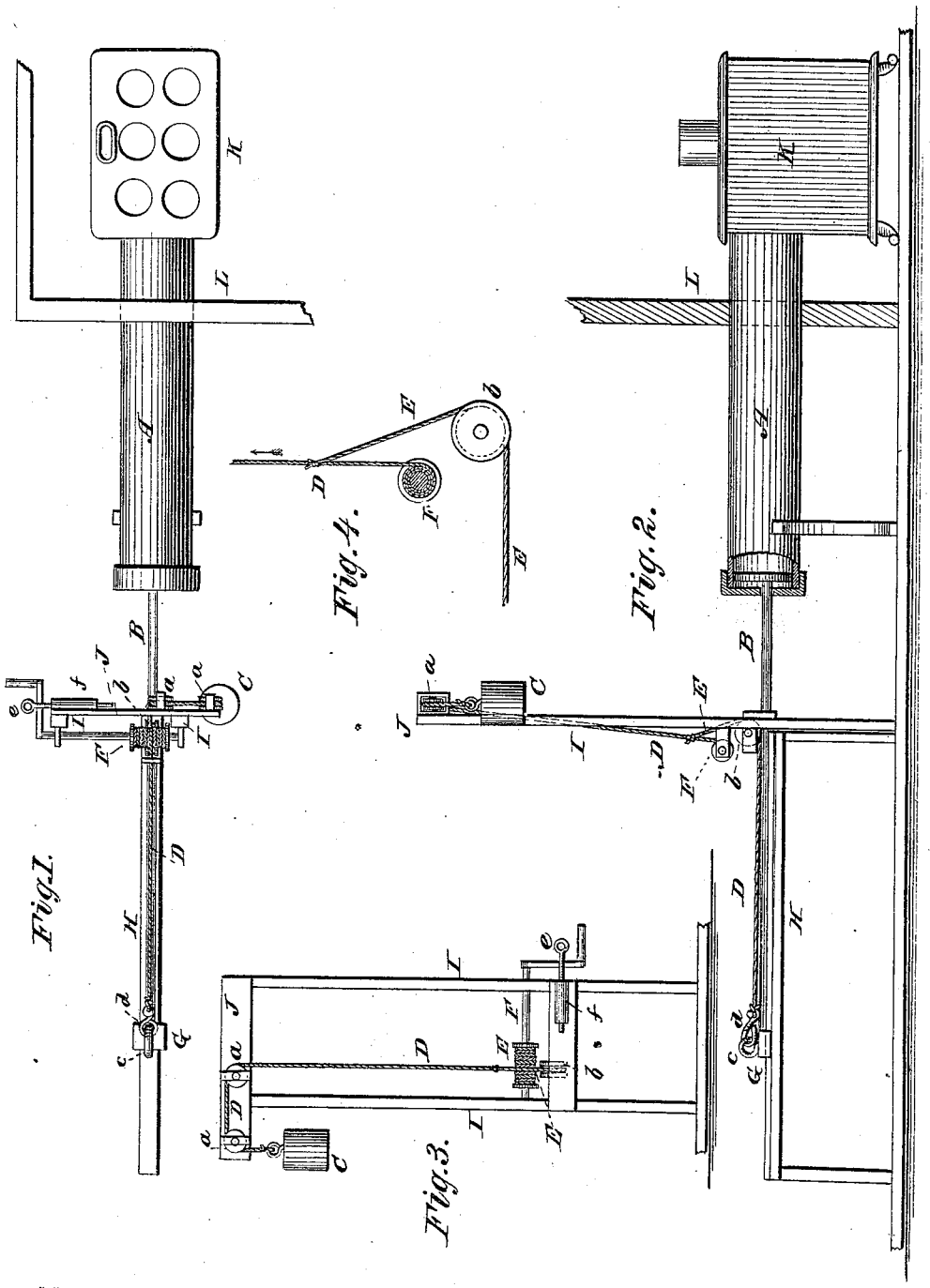

Fig. 1.

Fig. 3.

Fig. 4.

Fig. 2.

Witnesses:

A. Estabrook

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UNITED STATES PATENT OFFICE.

JONATHAN A. STOCUM, OF ENGLEWOOD, ILLINOIS.

IMPROVEMENT IN HAY-STOVES.

Specification forming part of Letters Patent No. **217,651**, dated July 15, 1879; application filed March 25, 1879.

To all whom it may concern:

Be it known that I, JONATHAN A. STOCUM, of Englewood, Cook county, State of Illinois, have invented new and useful Improvements in Hay-Stoves, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a top or plan view; Fig. 2, a side elevation; Fig. 3, an end elevation, showing the devices for operating the plunger; Fig. 4, a detail showing the mode of attaching the ropes for the weight and plunger.

The object of this invention is to construct a device by means of which hay and other fibrous material, when used for fuel, can be fed to a stove in a room or building from a point outside of and removed some distance from the wall of the room or building; and its nature consists in providing a feeding-tube connected with the fire-pot of a stove, and passing therefrom through the wall to a point outside to receive the material; in providing a plunger operated by a weight for forcing the hay through the tube; in providing a system of ropes, windlasses, and pulleys for operating the weight and plunger; and in the devices hereinafter set forth as new.

In the drawings, A represents the tube; B, the plunger; C, the weight; D, the rope for operating the plunger by the weight; E, the rope for elevating the weight; F, the windlass; G, the slide or head on the plunger; H, the track or guideway for the head; I, the uprights or posts; J, the cross-bar; K, the stove; L, the walls of a building; *a*, the pulleys for the rope D; *b*, the lower pulley for the rope D; *c d*, the hooks for attaching the rope E to the head G; *e*, the pin for holding the windlass when the weight is raised; *f*, the socket attached to the upright to receive the pin *e*.

The tube A may be made of sheet metal or other suitable material, and may be of round, oval, or other form, with a smooth interior, which will permit the passage of the material through the tube. The inner end of this tube is connected with the fire-box of an ordinary stove, K, in such manner as to be protected from the heat and to deliver the material into such fire-box. This tube passes through the wall of the room or building, and its outer end is at a sufficient distance away from the wall to give the tube the required length to contain a sufficient amount of material to last for a considerable length of time; and this distance should be such as to prevent the litter and waste from entering the room or building when the tube is filled.

The head of the plunger B corresponds to the form of the tube with which it is used, so that it will fit the interior of the tube, and the length of the stem or rod must be sufficient to force all, or nearly all, of the material from the tube into the fire-box. This rod B is held by and slides on a cross-bar attached to the standards I, and on its outer end is a head, G, which slides back and forth on a track or bar, H, so as to support the rod and keep it in a level position and in line with the tube A, so as to insure the proper centering and entrance of the head of the plunger into the tube.

The weight C is sufficiently heavy to force the contents of the tube therefrom by means of the plunger B, which this weight operates. This weight is attached to one end of the rope D, which passes over pulley-wheels *a a*, located on the cross-bar J, and then down and under the pulley *b*, located below the windlass, and is attached at its other end to the head G of the plunger by hooks *c d*, or in any other suitable manner.

To the rope D, at the proper point, is attached a rope, E, the other end of which is connected with the windlass F, of any suitable construction, so that by winding the rope E onto the windlass the weight C will be raised and the plunger can be withdrawn from the tube, and by allowing the rope to unwind the weight can descend and force the plunger into the tube.

A sufficient space is to be left between the end of the tube and the uprights or posts to allow the plunger to be withdrawn, so as to fill the tube with the material; and the uprights I must be of sufficient height to permit the weight to be raised high enough for the purpose of withdrawing the plunger and to descend far enough to force the plunger through the tube as far as required.

In operation, the weight C is to be raised, so that the plunger can be withdrawn from the tube and retained in that position by the pin *e*, which locks the windlass, when inserted in the socket *f*, in which position the rope E will

be wound on the windlass and the head G will be at the outer end of the track or bar H. The tube A is to be then filled with the hay or other material, and when filled the plunger-head is placed against its contents and the pin *e* withdrawn, when the device is ready for use. The weight C will exert a sufficient pressure on the plunger to carry it into the tube, by reason of its connection with the head G through the rope D, so that as the hay or other material is consumed in the fire-box the plunger, as it is carried forward, will force a fresh supply into the fire-box as fast as required for consumption, which supply will continue until the tube A is emptied; and when empty the plunger can be withdrawn, the weight raised, and the tube filled for the next operation.

The end of the tube A may be closed by a cap or cover or other suitable device which will make the tube sufficiently air-tight to prevent any back draft.

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

1. The tube A, having its inner end connected with the fire-box of a stove, and its outer end terminating outside of the wall of the room or building, in combination with a plunger operated by a weight for feeding the material as required for burning, substantially as specified.

2. The stove K, tube A, plunger B, and weight C, in combination with the ropes D E and operating-windlass, substantially as and for the purposes specified.

3. The track H, head G, weight C, plunger B, and connecting-ropes, in combination with a stove, K, and the tube A, located and arranged substantially as and for the purposes specified.

JONATHAN A. STOCUM.

Witnesses:
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