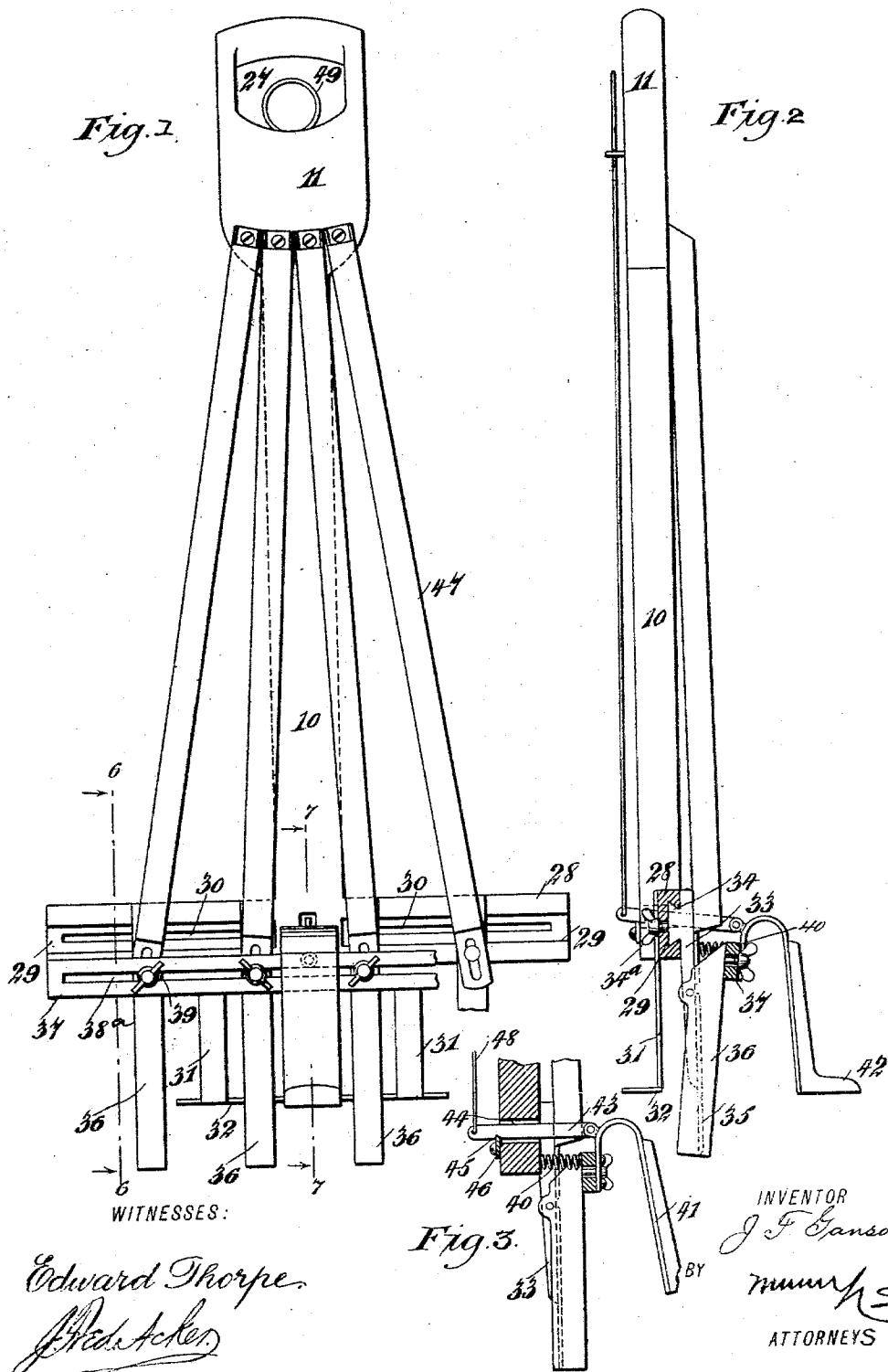


(No Model.)

J. F. GANSON.
HAND PLANTER.

No. 571,614.

Patented Nov. 17, 1896.



UNITED STATES PATENT OFFICE.

JOHN F. GANSON, OF LODGE POLE, NEBRASKA.

HAND-PLANTER.

SPECIFICATION forming part of Letters Patent No. 571,614, dated November 17, 1896.

Application filed January 30, 1896. Serial No. 577,332. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. GANSON, of Lodge Pole, in the county of Cheyenne and State of Nebraska, have invented a new and Improved Hand-Planter, of which the following is a full, clear, and exact description.

My invention relates especially to an improvement in hand-planters, and especially to that class of planters adapted for depositing young plants in the ground; and the object of the invention is to construct a planter of this description in an exceedingly simple, durable, and economic manner, and to provide the planter with a spade-point and a shoe pivoted in such manner as to have movement to and from the point, the said shoe being connected with the receiver or reservoir in which the plant to be placed is to be introduced.

A further object of the invention is to provide the shoe with a foot adapted for engagement with the ground and to act in the dual capacity as a gage and as a trip for the shoe, placing the shoe in such position when the spade of the planter has entered the ground a proper distance to admit of the plant conducted by the receiver or reservoir entering the opening in the ground prepared to receive it.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

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

Figure 1 is a front elevation of my invention. Fig. 2 is a section taken substantially on the line 6 6 of Fig. 1, and Fig. 3 is a section taken substantially on the line 7 7 of Fig. 2.

As shown in the drawings, a cross-bar 28 is secured at the lower end of the stock or shank 10. This cross-bar is provided with a longitudinal preferably centrally-located dovetail recess 29, and a number of slots 30 are longitudinally made in the back or vertical wall of the aforesaid recess. A gage is secured to the cross-bar 28, comprising two vertical bars 31, extending downward from the back of the cross-bar, one at each side of the center,

being adjustably attached to the said cross-bar, and a bottom bar 32 is horizontally attached to the upright bars 31. Auxiliary stocks 33 are adjustably carried by the cross-bar 28, as each stock is provided with a dove-tail tongue upon its back adapted to enter the dovetail recess in the cross-bar, and each auxiliary stock is held in a predetermined position by means of set-screws 34 or their equivalents, passed through the slots 30 in the cross-bar 38 and into the tongue projections 34 of the stocks. Each auxiliary stock has a spade 35 securely attached to its lower end, and upon each auxiliary stock a shoe 36 is pivoted, the said shoe extending downward around the spade, and it is open at the rear. A trip-bar 37 is adjustably attached to the upper ends of all of the shoes 36, the attachment being adjustably made upon the forward faces of the shoes, and to that end the trip-bar 37, which is substantially parallel with the cross-bar 28 of the main stock, is provided with longitudinal slots 38, which receive set-screws 39, the said set-screws being passed to an engagement with the aforesaid shoes.

A spring 40 is made to engage with the back face of the central portion of the trip-bar and with the front face of the central portion of the cross-bar 28, the said spring acting to force the trip-bar in a forward direction and thus maintain the shoes normally closed at their lower ends. A single trip-foot 41 is employed for all of the shoes, and this foot is adjustably secured to the central portion of the outer face of the trip-bar and terminates at its lower end in a flange 42.

After the spades have entered the ground a predetermined distance the flange of the foot will strike the ground, and by carrying the planter forwardly to exert pressure on the flange of the foot the said foot will carry the trip-bar rearward and will open all of the shoes, as shown in Fig. 7, and the shoes will be held in their open position by means of a latch 43, pivotally attached either to the rear upper portion of the foot or to the central upper portion of the trip-bar, and this latch is carried rearward through an opening 44 in the main stock and is provided with a notch 45 or its equivalent in its lower edge to engage with the keeper-plate 46, extending

across the rear end of the aforesaid opening 44, as shown in Fig. 7.

As many receivers or conductors 47 are employed as there are shoes. All of the receivers are attached at their upper ends to the forward face of the handle portion 11 of the planter, and at their lower ends each of the said receivers is pivotally connected with one of the spade-stocks 33. After the shoes have been opened the plants are allowed to drop through the conductors 47 into respective openings formed in the ground. When the plants have been deposited in the ground and the planter is disengaged from the plants, the latch 43 is carried out of engagement with its keeper by means of a trip-rod 48, connected with the latch and carried upward at the rear end of the main stock, terminating in an eye 49, located opposite the opening 27 in the handle.

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

1. In a hand-planter, the combination, with a support, stocks adjustable upon the said support, and a spade attached to the lower portion of each stock, of shoes pivoted upon the spade-stocks, partially surrounding the said spades, a trip-foot connected with all of the shoes and adapted for engagement with the surface of the ground, serving when in such contact to carry the shoes to an open position, a latch connected with all of the shoes, a keeper for the latch, and a trip connected with the said latch, as and for the purpose specified.

2. In a hand-planter, the combination, with a support, stocks adjustable upon the said support, and a spade attached to the lower portion of each stock, of shoes pivoted upon the spade-stocks, partially surrounding the said spades, a trip-foot connected with all of the shoes and adapted for engagement with

the surface of the ground, serving when in such contact to carry the shoes to an open position, a latch connected with all of the shoes, a keeper for the latch, a trip connected with the said latch, a spring operating in a direction to close the lower ends of the shoes, and conductors attached to the support and to the said spade-stocks in a manner to provide a conductor for each of the shoes, whereby a plant when placed in a conductor will be delivered to one of the shoes, as and for the purpose specified.

3. In a planter, the combination with a shank, of a series of rigid stocks, a spade carried by each stock, a trip-bar, a shoe pivoted on each stock, the shoes being connected to the trip-bar, a spring pressing the trip-bar, a foot connected to the trip-bar, a latch pivotally connected to the foot, and means for disengaging the latch, substantially as described.

4. In a planter, the combination with a shank, of a grooved cross-bar, a series of stocks adjustably held on the grooved cross-bar, a spade fixed to each stock, a shoe pivotally mounted on each stock, a trip-bar connected with the shoes, a spring pressing the trip-bar, a foot connected to the trip-bar, and a latch moving with and holding the cross-bar, substantially as described.

5. In a planter, the combination of a shank, a plurality of stocks rigidly carried by the shank, a spade fixed to each stock, a channel-shaped shoe pivoted to each stock and respectively capable of movement to receive the shoes, a trip-bar rigidly connecting the shoes, a foot fixed to the trip-bar, a spring pressing the trip-bar, and means for removably holding the trip-bar against the tendency of the spring, substantially as described.

JOHN F. GANSON.

Witnesses:

FRED LEHMKUHL,
R. RANDOLPH.