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TOBACCO SUCKER-GERM DESTROYER.

No. 183,686. Patented Oct. 24, 1876.

Fig. 1.

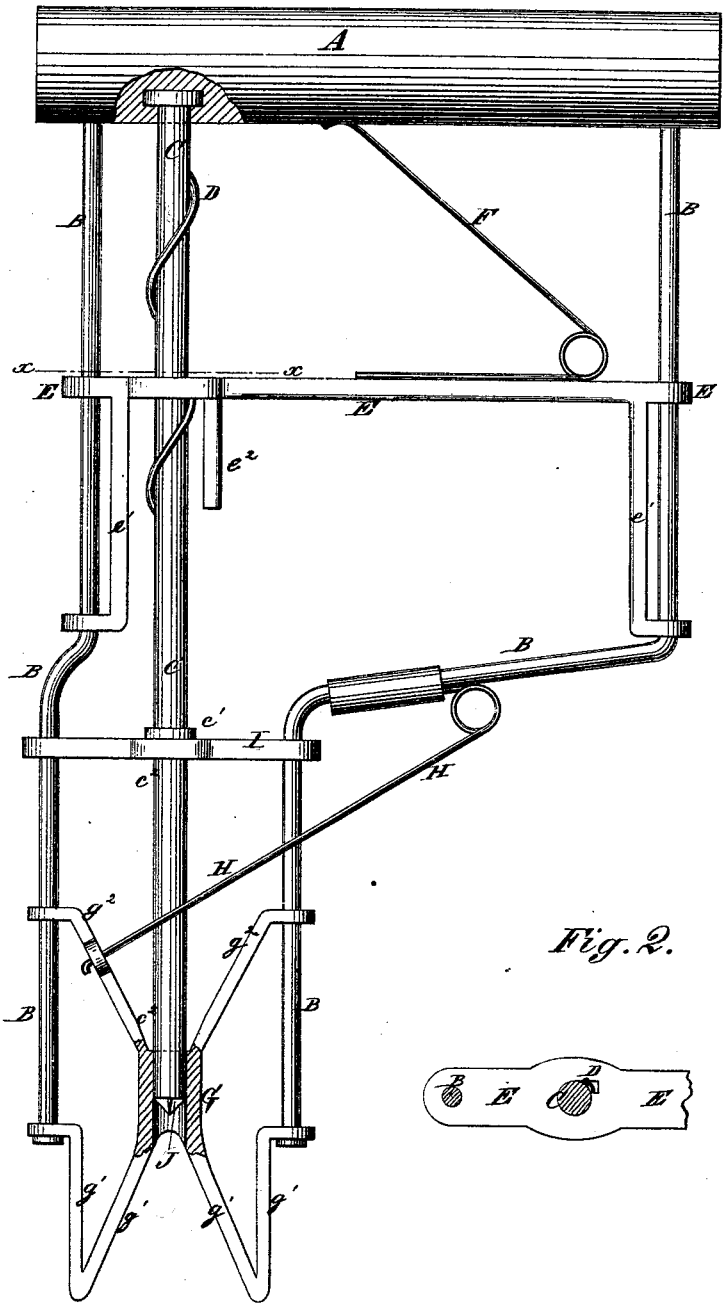

Fig. 2.

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IMPROVEMENT IN TOBACCO-SUCKER-GERM DESTROYERS.

Specification forming part of Letters Patent No. **183,686**, dated October 24, 1876; application filed September 9, 1876.

To all whom it may concern:

Be it known that we, JOSEPH H. KNAUS, JOHN R. HARFORD, WALTER C. KNAUS, and ANDREW J. FURR, of Boonsborough, county of Howard, and State of Missouri, have invented a new and Improved Tobacco-Sucker-Germ Destroyer, of which the following is a specification:

Figure 1 is a side view of our improved instrument, parts being broken away to show the construction. Fig. 2 is a detail cross-section taken through the line *x x*, Fig. 1.

The object of this invention is to improve the construction of the tobacco-sucker-germ destroyer for which Letters Patent No. 172,036 were granted to Joseph H. Knaus and John R. Harford, January 11, 1876, so as to make it simpler in construction, more convenient in use, less liable to injure the small leaves of the plants, more durable, and less liable to get out of order.

The invention consists in the construction and arrangement of parts, as hereinafter described and claimed.

Similar letters of reference indicate corresponding parts.

A is the handle, to which, near its ends, are attached the ends of two rods, B. The upper parts of the rods B are parallel with each other, and at or a little below their middle parts the said rods have a forward offset formed in them, the offset of the rear rod being the longer, so as to bring their lower parts, which are also parallel with each other, closer together than their upper parts, as shown in Fig. 1. To the handle A, near the forward rod B, is swiveled the upper end of a third rod, C, which has a spiral thread, D, formed upon its upper part. The three rods B C B pass through holes in the cross-bar E, the hole for the rod C having a notch in one side to receive the thread D, so that the said rod C may be rotated by the up-and-down movement of the said cross-bar E. Upon the end parts of the cross-bar E, at the inner side of the holes through its ends, are formed downwardly-projecting arms e^1, the ends of which are bent outward, and have holes formed through them to receive the rods B, so that the cross-bar E may be kept at right angles with the rods B C B while moving up and down upon them. This construction leaves an unobstructed space between the rod C and the rear rod B for the hand of the operator. Upon the cross-bar E, at the rear side of the rod C, is formed a downwardly-projecting guard-arm, e^2, to keep the rotating rod C and its thread D from coming in contact with the forefinger of the operator's hand. The cross-bar E is raised by the fingers of the hand that grasps the handle A, and is pressed down by the steel spring F, the lower end of which is secured to the upper side of the cross-bar E, and its upper end slides in a shallow groove in the lower side of the handle A. The spring F has a coil formed in it at its lower end to give it greater elasticity. G is a socket, which slides upon the lower end of the rotating rod C, and upon the lower end of which are formed two arms, g^1. The arms g^1 project outward and forward, are bent back in lines parallel with the lower parts of the rods B, and have their ends bent outward and perforated, to receive the lower ends of the rods B. Upon the upper end of the socket G are formed two arms, g^2, which project upward and outward, and have their upper ends bent outward and perforated to receive the rods B. The socket-frame G g^1 g^2 is kept from dropping off the rods B by heads formed upon the lower ends of said rods. By this construction the angles of the arms g^1 project below the ends of the rods B, so that the lower ends of said rods, when the instrument is being used, cannot project to injure the small leaves of the plants, or to run into the ground when operating upon the lower parts of the stalks. The angle of inclination, or the curve of the arms g^1 g^2, is immaterial, so long as the arms g^1 have a cavity between them to guide the cutter or drill into the junction formed by the leaf and stalk of the plant. The socket-frame G g^1 g^2 is held down by a steel spring, H, the upper end of which is attached to the offset of the rear rod B, and its lower end passes through and slides in a hole in the forward arm g^2. The spring H has a coil formed in it at its upper end to increase its elasticity. The lower parts of the three rods B C B are held in their proper relative position by a cross-bar, I, through holes in

which the said rods pass, and against the upper side of which rests a collar, c^1, formed upon the rotating rod C. J is a cutter, which is secured to the lower end of the rod C by a sleeve, c^2, placed upon the lower end of the said rod C, and the upper end of which rests against the lower side of the cross-bar I. The rods B C B are made of such a length that, when the parts of the instrument are left free, the cutter J may be within the socket G, as shown in Fig. 1.

In using the instrument, the handle A is grasped in the hand, with the fingers beneath the cross-bar E, and the cavity between the arms g^1 is placed against the tobacco-stalk, directly over the sucker-germ, and is pressed against said stalk with sufficient force to force the socket-frame G g^1 g^2 upward and cause the cutter J to project against said germ. The cross-bar E is then drawn upward with the fingers, which rotates the rod C and the cutter J, and cuts out and destroys the germ, so that it will not grow again.

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

1. The rear rod B, bent forward or toward the front rod B, the rotating cutter-bearing rod C, arranged contiguous to said front rod, the cross-bar I, and vertically-reciprocating bar E, all combined as shown and described, for the purpose specified.

2. The forked part G g^1, made in the form of the letter **W**, in combination with rod C, bar E, handle A, and rods B B, as shown and described.

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