(No Model.)

A. S. PECK.

CORN HARVESTER.

No. 570,498. Patented Nov. 3, 1896.

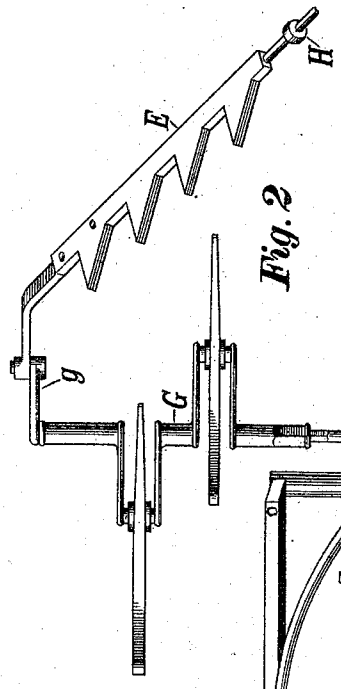

Fig. 2

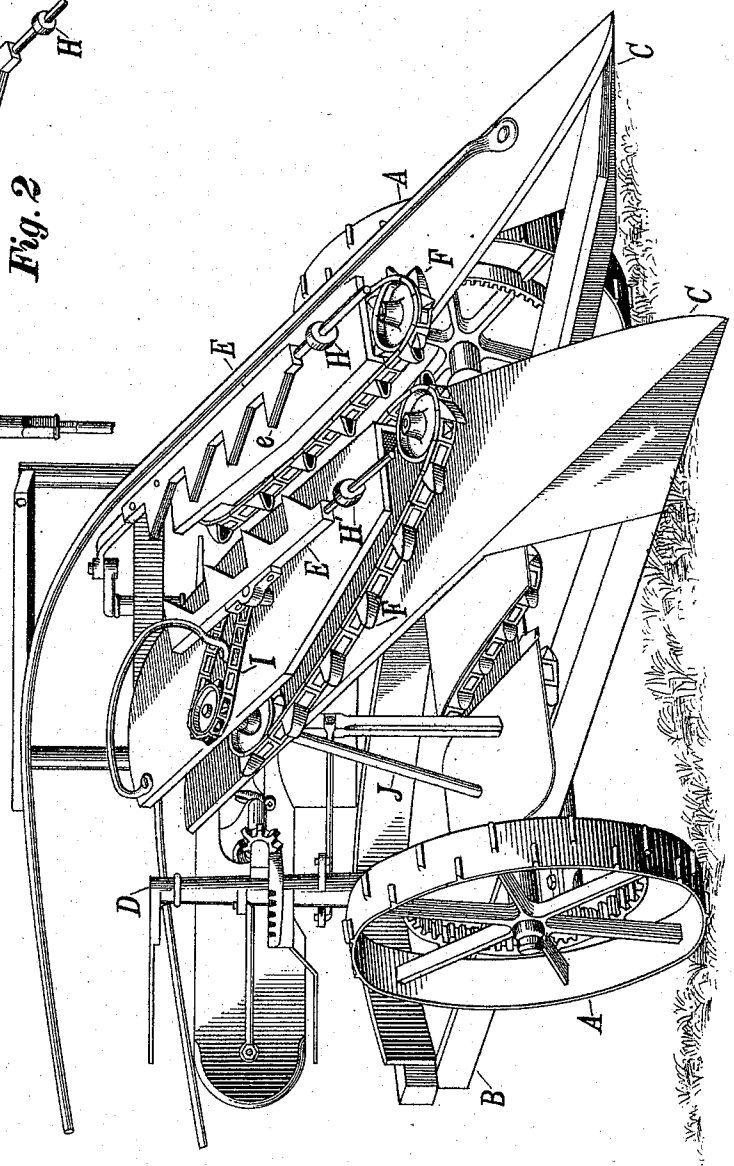

Fig. 1

Witnesses
John M Culver
Wm. H. Ferguson

Inventor
Albert S. Peck
By his Attorney P. B. Swift.

UNITED STATES PATENT OFFICE.

ALBERT S. PECK, OF GENEVA, ILLINOIS, ASSIGNOR TO THE McCORMICK HARVESTING MACHINE COMPANY.

CORN-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 570,498, dated November 3, 1896.

Application filed January 28, 1895. Serial No. 536,445. (No model.)

To all whom it may concern:

Be it known that I, ALBERT S. PECK, a citizen of the United States, residing at Geneva, in the county of Kane, in the State of Illinois, have invented a new and useful Improvement in Machines for Harvesting Corn, of which the following is a specification.

My improvement relates to a class of binding corn-harvesters in which forwardly-projecting upwardly-inclined prongs extending from the machine pass on each side of the row to guide the standing corn and to lift the fallen and lodged stalks, thus vertically straightening them, and it relates particularly to devices positioned on these prongs to assist in lifting the stalks and forcing them onward toward the binder.

The particular form of a machine to which I have shown my improvement applied is one patented by me on the 5th day of January, 1892, No. 466,512, and the improvement consists of actuating-arms provided with teeth which are given motion by cranks that receive power from the onward movement of the machine.

The accompanying drawings illustrate the mechanism of my improvement, in which—

Figure 1 is a perspective view of so much of a corn-harvester as is necessary to show my improvement, while Fig. 2 is a perspective showing the gathering-arm and its attachment to the packer-crank.

The wheels A, the frame B, the gathering-prongs C, and the binder D are of the same type as are shown in my previous patent heretofore referred to. In that machine the forwardly-projecting gathering-prongs pass upon both sides of the row, lifting and converging the stalks as the prongs are forced beneath them, and by means of rearwardly-traveling fingers the stalks are carried backward, and being confined by the gathering prongs they are held in a vertical position until they are delivered to the binding mechanism. After much experience in the field in different conditions of corn and in all kinds of weather I have found that the operation of the machine is improved in tall and tangled corn, especially in windy weather, if a supplemental forwarding or onwardly corn-actuating device is located on the machine parallel with the corn-slot that is formed by the gathering-prongs and in a plane above the forwarding-fingers F on the gathering-prongs to assist in carrying the heavy tops onward and to prevent them being blown forward and thus hanging upon the machine after being bound and the bundle discharged. To accomplish this object, I locate the actuating-arms E, having fingers *e* to penetrate the corn, between the prongs C above the chains F. Motion is transmitted to these actuating-arms E by means of cranks attached to their rear ends, and these cranks are driven from a convenient part of the machine. In the drawings, Fig. 2 illustrates the packer-shaft G of the vertically-arranged binder of the machine, with a crank *g* to give motion to the actuating-arm E. The front or lower end of this arm slides through an eye H on the gathering-prong. In Fig. 1 is shown a means of driving the crank on the other prong of the machine, which consists of a chain I, that receives its motion from the diagonal shaft J, that is actuated by the forward motion of the machine. The front or lower end of this arm is guided by an eye H′, located on its prong. From the description so far given it is plain that as these cranks are rotated the teeth on the actuating-arms E enter the corn that passes between the gathering-prongs and force it backwardly toward the binder. These arms are so timed that the arm on one side retreats from the corn as the arm on the other side advances toward it. It is plain to be seen that in any machine that binds the corn standing vertically these actuating devices will be of assistance in raising and forcing the tops of tall corn onwardly to the binder, and it is also plain that in any type of a corn-machine in which the corn is to be cut and tipped backwardly to fall horizontally, or nearly so, these actuating-arms will be of advantage.

The peculiar entering and withdrawing stroke given by the cranks is found to act upon the corn very gently, withdrawing from any ears the teeth may hit on the stalks with sufficient rapidity, so that the ears are seldom torn from the stalks by the forward motion of the machine. In cutting corn that has become somewhat ripened, it has been found

that, to grab the stalk and move it backwardly by carrying-fingers that travel the full distance of the confined passage-way through which the corn is to be guided before being severed, the corn drawing through the gathering-prongs as it must because of their slant, and the forward motion of the machine, the ears will be wrenched from the stalks unless the forwarding-teeth quickly advance into and move the corn onwardly and rapidly withdraw from it. In the construction shown the fingers upon the forwarding-chains take hold of the stalks beneath the ears, while the reciprocating actuating-arms E must, to a greater or less degree, at all times operate in the path of the ears. I have discovered that these actuating-arms E act in a more satisfactory manner if they take hold of the corn after the stalk has been grasped below by the forwarding-fingers F. I therefore so locate them that their receiving ends are farther to the rear than those of the forwarding-fingers F. I also continue the rear ends of the actuating-arms E in rear of the forwarding-fingers F, so that their action on the tops of the stalks shall continue after the action of the forwarding-fingers has ceased, and the movement of the tops is thereby continued toward the binder after the fingers have ceased to act. The crank on the packer-shaft, with the rear end of the actuating-arm, serves to carry the stalks of corn beyond the forwarding-fingers F and to incline the tops onwardly into the diagonal outward passage to the delivery side of the machine. It is plain that while arms upon each of the gathering-prongs would be advantageous, still a single arm would be of benefit, and especially the one driven by the packer-shaft.

Having now described my invention, what I claim is—

1. In a corn harvester and binder having gathering-prongs projecting forwardly on each side of the row and inclining upwardly toward the rear, the combination of fingers traveling in a rearwardly and upwardly inclined direction, said fingers adapted to seize the body portion of the stalks below the ears and straighten, lift, and forward the same, and an auxiliary, rearwardly-traveling, tops-forwarding device, said device being bodily located in relation to the traveling fingers so that the front and rear limits of its path are respectively in rear of the corresponding limits of the path of the fingers, whereby the tops are held erect and prevented from falling forward and their movement toward the binder is continued after the fingers have ceased to act.

2. In a corn harvester and binder having gathering-prongs projecting forwardly on each side of the row and inclining upwardly toward the rear, the combination of a butts-forwarding device, fingers traveling in a rearwardly and upwardly inclined direction, said fingers adapted to seize the body portion of the stalks below the ears and straighten, lift, and forward the same, and a tops-forwarding device, said device being bodily located in relation to the traveling fingers so that the front and rear limits of its path are respectively in rear of the corresponding limits of the path of the fingers, whereby the tops are held erect and prevented from falling forward and their movement toward the binder is continued after the fingers and butts-forwarding device have ceased to act.

ALBERT S. PECK.

Witnesses:
JOHN M. CULVER,
E. E. CLINTON.