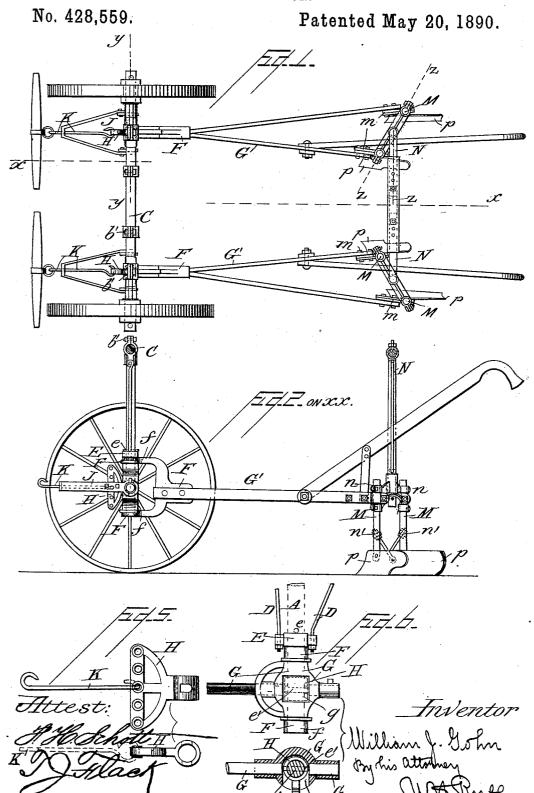
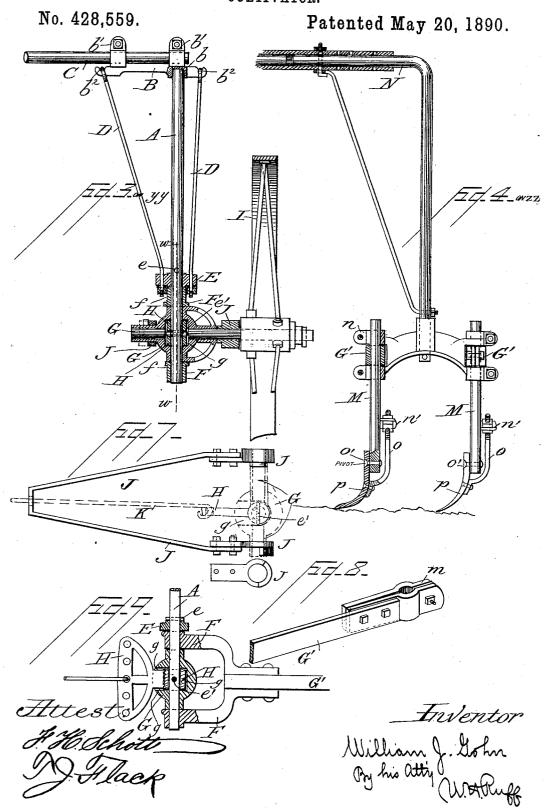
W. J. GOHN. CULTIVATOR.



W. J. GOHN. CULTIVATOR.



United States Patent Office.

WILLIAM J. GOHN, OF OAKWOOD, ILLINOIS.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 428,559, dated May 20, 1890.

Application filed January 14, 1890. Serial No. 336,875. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. GOHN, of Oakwood, in the county of Vermilion and State of Illinois, have invented certain new and useful Improvements in Corn-Cultivators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the 10 same.

My invention relates to an improvement in tongueless cultivators, the object of the same being to provide the same with an adjustable

A further object is to provide a combination box and axle, whereby free upward, downward, and side movements may be effected.

A further object is to provide means for governing the depth and angle of the shovels.

With these ends in view my invention consists in the certain features of construction and combinations of parts, as will be hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a top plan view of the elevator. Fig. 2 is a section thereof on lines x x of Fig. 1. Fig. 3 is a cross-section on line y y of Fig. 1. Fig. 4 is a view thereof on line zz of Fig. 1. Figs. 30 5 and 6 are views of the clevis and coupling. Fig. 7 is a view of the wheel-guide, and Fig. 8 is a view of the shovel-clamp. Fig. 9 is a sec-

tion on line w w of Fig. 3.

A represents a vertical rod, having its upper end mounted in the yoke B, as shown at The yoke is provided with the collars b'adapted to receive suitable bolts, by means of which the same are compressed on the bar C, and by means of which the same may be ad-40 justed. The yoke is provided near its ends with the notches b^2 to receive the upper ends of the brace-rods D, the lower ends of said rods being screw-threaded and entering perforations formed in the flange of the swivel E. The rod A passes through the center of the swivel E.

By the employment of the yoke B, rods D, and swivel it will be seen that the machine

swivels have a slight lateral movement, there- 50 by relieving the parts from strain. The coupling F is secured to the beams G', and the rod A passes through the perforations formed in the free ends of its arms f.

G represents the axle and coupling device 55 combined, the same being adapted to fit snugly between the arms f, and is provided with the enlarged recess g in its forward part to receive the clevis H, which is of ordinary construction. It will be observed that the 60 rod A passes through the parts E, F, and G, thereby holding the same in position. The part G on its axle receives the wheel D, adjoining which is journaled one side of the wheel-guide J, the opposite side being jour- 65 naled on the inner end of the axle. The draftbar K is secured to the clevis and passes through a perforation formed in the end of the guide J. A spring-key e passes through rod A just above swivel E to hold the same in po-70 sition. The spring-key e' also passes through the clevis H to prevent the arch from being withdrawn. The beams G' are attached at their rear ends to the shanks M by means of the clamps m. The arch N is also secured to 75 the shanks M by means of suitable adjustable clamp n. The shanks are provided with the lug n', adapted to receive the brace o. The shovels p are pivoted to the shanks M, as shown at o', and are rigidly secured to the 80 braces o at their lower ends. The braces are adjustable in the lugs n', as the same are screw-threaded and provided with nuts on each side thereof.

The rear upper arch (shown in Fig. 1) and 85 the upper arch (shown in Fig. 4) are not included in this invention, the same having been used by way of illustration.

Having fully described my invention, what I claim as new, and desire to secure by Letters 90 Patent, is-

1. In a cultivator, the combination, with the bar C, the rod A, and yoke B, adjustably secured to said bar, of adjustable rods secured to the yoke and swivel E, substantially 95 as set forth.

2. In a cultivator, the combination, with may be adjusted vertically and through the the coupling F, secured to the beam G', the

axle and coupling device being provided with the recess g to receive the clevis, of a crossbar adjustably connected with the rod A WILLIAM J. GOHN. and yoke B, the rod A engaging the coup-5 lings F and G, substantially as shown and de-scribed.

In testimony whereof I have signed this

WILLIAM J. GOHN.

Witnesses: G. F. COBURN, GEO. W. WHYTE.