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L. REEVES & G. K. GILCHRIST.

SPRING TRIP FOR CULTIVATORS.

APPLICATION FILED MAY 13, 1907.

Fig. 1.

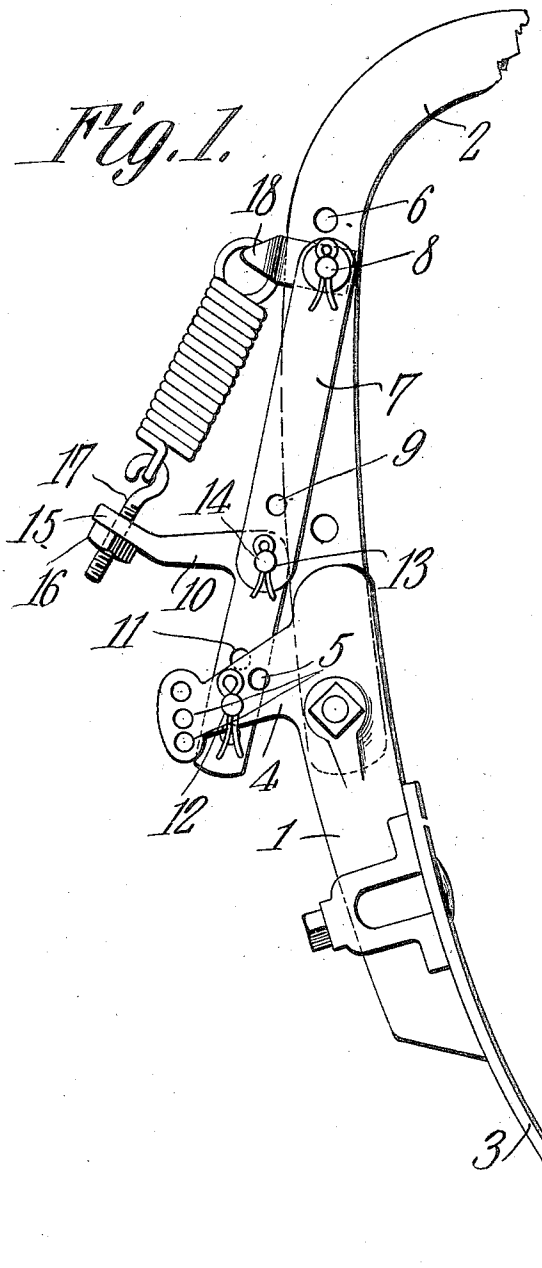
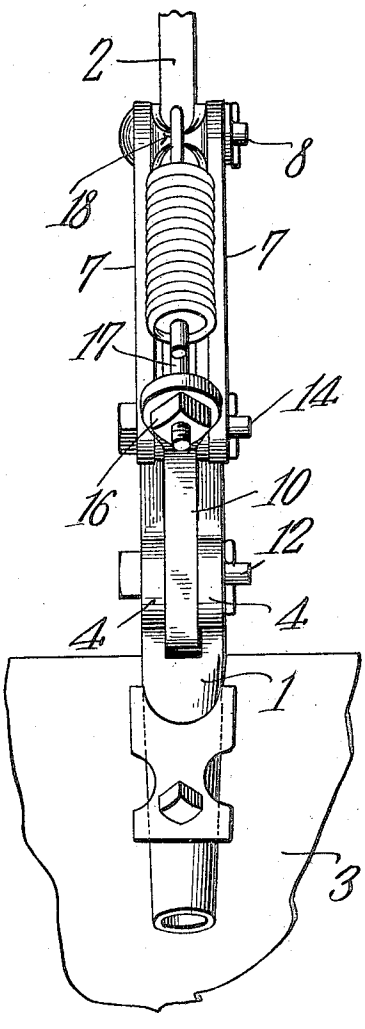


Fig. 2.



WITNESSES:

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SPRING-TRIP FOR CULTIVATORS.

No. 875,211. Specification of Letters Patent. Patented Dec. 31, 1907.

Application filed May 13, 1907. Serial No. 373,423.

To all whom it may concern:

Be it known that we, LEWIS REEVES and GEORGE K. GILCHRIST, citizens of the United States, residing at Vinton, in the county of Benton and State of Iowa, have invented a new and useful Spring-Trip for Cultivators, of which the following is a specification.

This invention has relation to spring trips for cultivators and it is an improvement in construction over the spring trip cultivator covered by Patent No. 839,956, granted to us on January 1, 1907.

The improved construction consists in arranging the parts in closer proximity to the cultivator standard and in removing some of the parts from the side thereof and substituting other parts in the rear of the standard for performing substantially the same function. By this arrangement a fewer number of parts are used and they are more compactly applied to the cultivator standard and are not liable to subject pivot bolts to undue strain as will hereinafter appear.

In the accompanying drawing: Figure 1 is a side elevation of the spring trip for cultivator, and Fig. 2 is a rear elevation of the same.

The shovel support 1 is pivoted to the lower end of the standard 2. The cultivator point 3 is adjustably attached to said support 1. The support 1 is provided with the rearwardly extending shanks 4 which straddle the lower end of the standard 2 and lie upon the opposite sides of the same. The rear ends of said shanks are provided with a series of transversely extending perforations 5, 5. The upper rear portion of the standard is provided with a series of perforations 6, 6. A pair of straight toggle links 7 is pivoted upon the bolt 8 which in turn passes through one of the perforations 6. One of the said links is upon each side of the standard 2. The lower portions of the links 7 are provided with a series of bolt perforations 9. The toggle lever 10 is substantially rectangular in side elevation and is provided at its lower portion with a series of bolt perforations 11, 11 any one of which is adapted to receive the bolt 12 which also passes through registering perforations 5 of the shanks 4 of the plow support 1. The intermediate portion of the lever 10 is provided with a fulcrum bolt receiving perforation 13 and the fulcrum bolt 14 passes through said perforation and one of the perforations 9 of the toggle links 7.

The lever 10 is substantially of the same transverse thickness as the standard 2 and the lower end of said lever enters the space between the shanks 4 and the intermediate portion of the lever enters the space between the lower ends of the links 7 thus the lever 10 is entirely positioned behind the standard 2 and the bolt 14 cannot come in contact with the rear edge of the standard as it is surrounded by the lever 10 and consequently the said lever protects the said bolt against lateral pounding or strain when the movement of the links and lever is checked by the rear edge of the standard 2. By providing a single lever 1 for connecting the links 7 with the plow support 1 the number of parts of the spring trip is reduced and the parts are more compactly grouped about the cultivator standard. The rear portion of the toggle lever 10 is perforated as at 15 and receives the end of a hook 17. The nut 16 is screwed upon the end of the said hook and is adapted to move the same longitudinally through said perforation. The clip 18 is attached to the standard 2 by means of the bolt 8 and the coil spring 19 is attached at one end to the said trip and is engaged at its opposite end by the hook 17.

From the foregoing description it is obvious that several means are provided for changing the angle of inclination of the shovel 3 with relation to the standard 2 and that by adjusting the nut 16 upon the hook 17 the spring 19 may be given such tension as is desired to maintain the shovel under.

Having described my invention what I claim as new and desire to secure by Letters-Patent is:—

A spring trip for cultivators comprising a shovel support pivoted to the cultivator standard and having rearwardly extending shanks which straddle and lie upon opposite sides of the standard, a pair of toggle links pivoted to the standard and located one upon each side thereof, a single toggle lever pivoted at its lower end between said shanks and lying wholly in the rear of the standard, said toggle lever being angular and being fulcrumed at an intermediate point between the lower ends of said links and having a por-

tion interposed between the fulcrum bolt and the edge of the standard, said lever being substantially of the same transverse thickness as the standard, and a spring connected at its ends with the toggle lever and the toggle links and extending across the fulcrum between the links and the lever.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

LEWIS REEVES.
GEORGE K. GILCHRIST.

Witnesses:
M. J. TOBIN,
E. A. MURPHY.