Feb. 27, 1934. R. G. LE TOURNEAU 1,949,059

ADJUSTABLE LEVELER BLADE MOUNTING

Original Filed Nov. 20, 1932

Fig. 1

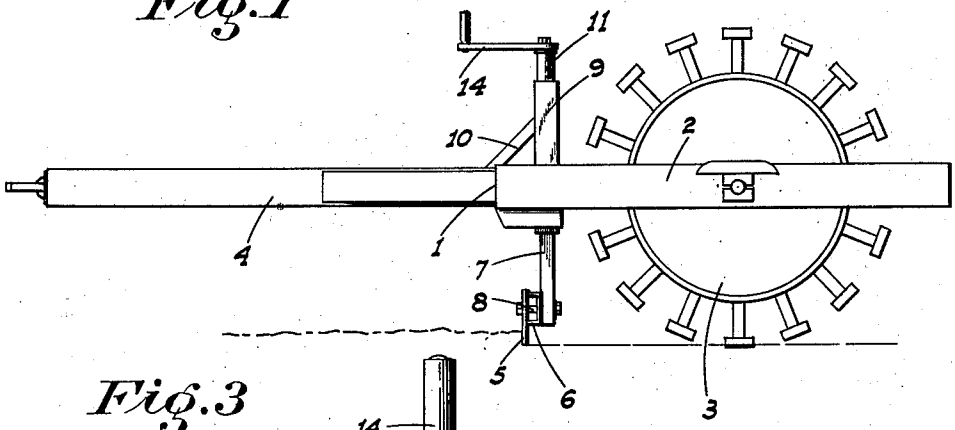


Fig. 3

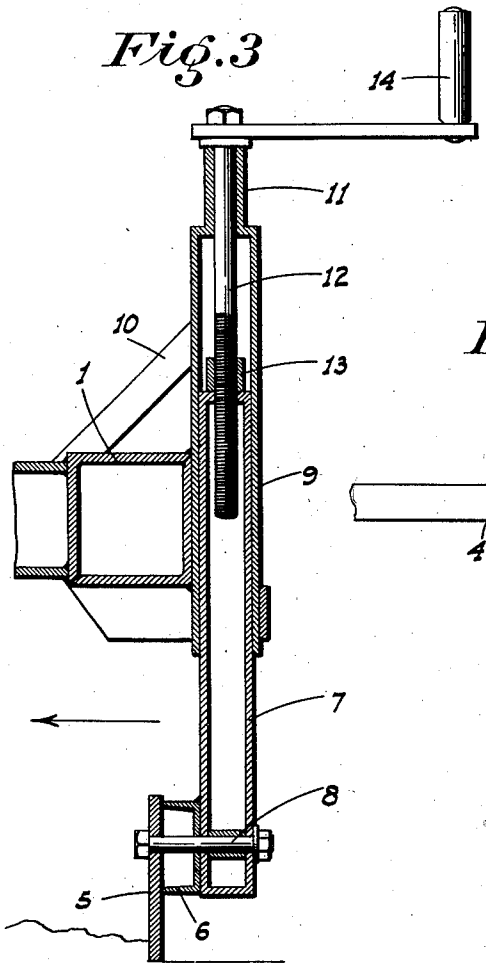
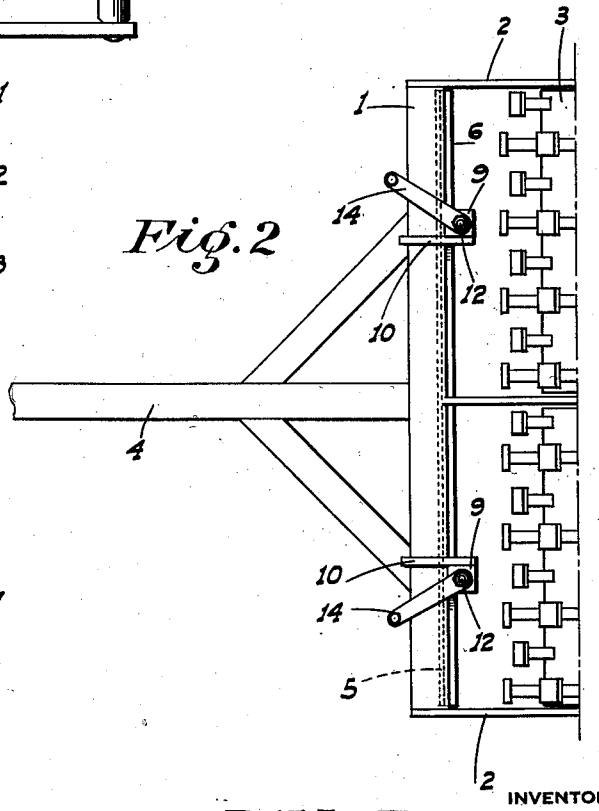


Fig. 2



INVENTOR

R. G. LeTourneau

BY

ATTORNEY

Patented Feb. 27, 1934 1,949,059

UNITED STATES PATENT OFFICE

1,949,059

ADJUSTABLE LEVELER BLADE MOUNTING

Robert G. Le Tourneau, Stockton, Calif.

Original application November 20, 1932, Serial No. 644,783. Divided and this application September 1, 1933. Serial No. 687,813

2 Claims. (Cl. 97—144.1)

This invention relates to leveler blades and is a divisional application of my co-pending application for patent, Serial No. 644,783, filed November 20, 1932. The blade in question is particularly intended to be mounted on a roller frame in front of the roller drums, but its utility is obviously not limited to such use.

The object of the invention is to mount the leveler blade in connection with the frame of the implement so that compactness with the necessary rigidity is obtained, while providing for the independent vertical adjustment of either end of the blade at will.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is intended.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawing similar characters of reference indicate corresponding parts in the several views:

Fig. 1 is a side elevation of a roller equipped with my improved leveler.

Fig. 2 is a fragmentary top plan view of the same.

Fig. 3 is an enlarged vertical section of one of the leveler blade mounting and adjusting units.

Referring now more particularly to the characters of reference on the drawing, the implement herein depicted comprises a heavy transverse frame beam 1 of hollow construction and substantially square in cross section. Side frames 2 project rearwardly from the beam 1, which support the rollers 3. A draft tongue 4 projects forwardly from the beam 1 centrally of its ends.

Disposed immediately under the front beam and extending substantially the full length thereof is the leveler blade 5, backed along its upper portion by a hollow reinforcing beam 6 welded thereon and which may be considered as forming a part of the blade. Hollow rectangular uprights 7 abut at the lower ends against the beam 6 towards its ends and are pivotally connected thereto by bolts 8 which also extend through the blade proper. The uprights are slidable and terminate in sleeves 9 rigidly welded against the back side of the beam 1 and projecting above the same some distance, so that the uprights will have a considerable length of bearing area in said sleeves. Heavy brace straps 10 project upwardly from the beam 1 at a rearward angle and are welded against the sleeves on one side, so as to aid in maintaining the rigidity thereof.

The upper portions of the sleeves are reduced in size so as to form bearings 11 for screw stems 12 which are threaded into nuts 13 welded on the upper ends of the uprights 7. The stems above the sleeves are provided with crank handles 14 whereby said stems may be easily turned by hand and whose hubs engage the upper end of the bearing members 11 and prevent downward movement of the stems.

The uprights 7 may have a certain amount of loose lateral play in the sleeves, or the bolts may be capable of a certain amount of lateral play in the blade and beam 6. Allowance for such play however need be but slight, since any relative change of level between the opposite ends of the blade is a matter of inches only, whereas it is a span of several feet between the adjustable supports.

By means of this construction it will be seen that the blade may be raised or lowered at either end independently as the ground conditions may require. Also the blade is supported both against vertical movement and backward deflection solely by the adjustable uprights, thus simplifying the construction without loss of efficiency. The hollow construction of the uprights and other parts gives great strength and rigidity with a minimum of weight.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

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

1. In a ground working implement, a transverse frame beam, a transverse leveler blade under said beam, rigid uprights abutting against and connected to the blade at spaced points in its length, sleeves mounted on and rigid with the beam and into which said uprights slidably project, and means between said sleeves and uprights to adjust the blade vertically.

2. In a ground working implement, a transverse frame beam, a transverse leveler blade under said beam, rigid uprights abutting against and connected to the blade toward its ends, sleeves mounted on and rigid with one vertical face of the beam and into which said uprights slidably project, screw stems turnably mounted in said sleeves above the uprights and held against downward movement, and elements on the upper ends of the uprights in which the stems are threaded.

ROBERT G. LE TOURNEAU.