

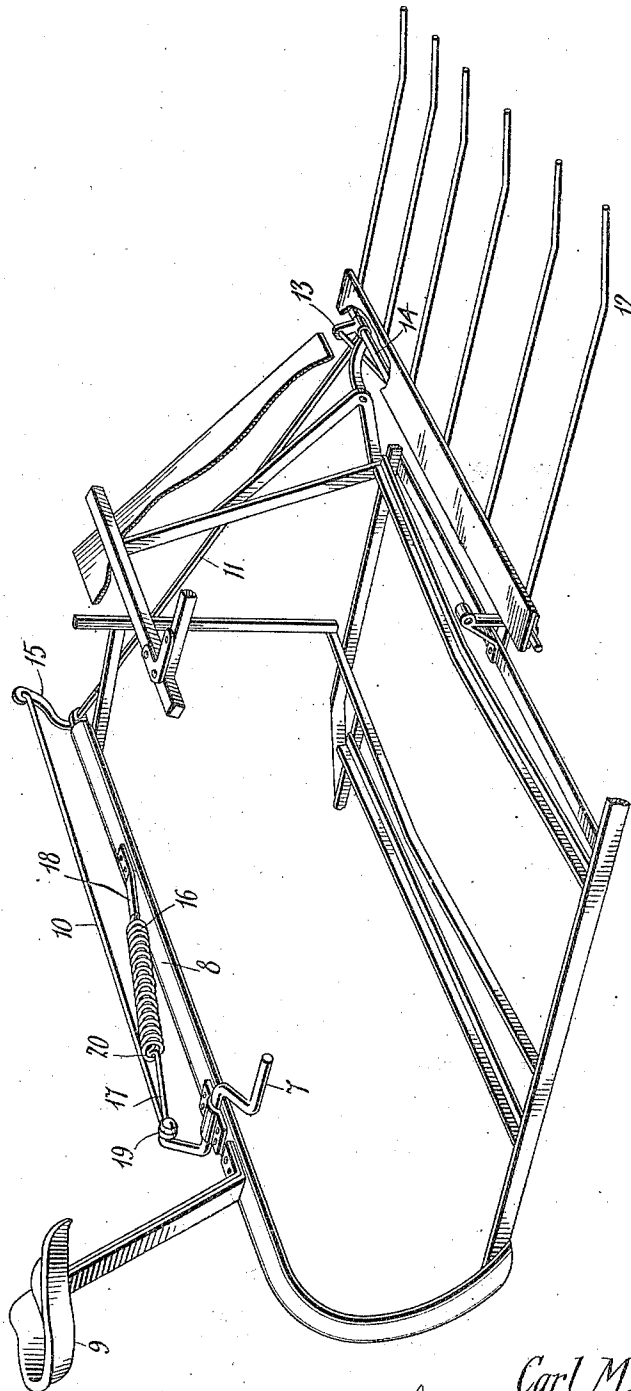
C. M. HANNA.
ATTACHMENT FOR SHEAF CARRIERS.
APPLICATION FILED NOV. 9, 1908.

948,013.

Patented Feb. 1, 1910.

2 SHEETS—SHEET 1.

FIG. 1



Witnesses

L. B. Hanna
H. M. Hanna

Inventor

Carl M. Hanna

By *Charles Hanna*
Attorneys

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2 SHEETS—SHEET 2.

FIG. 2

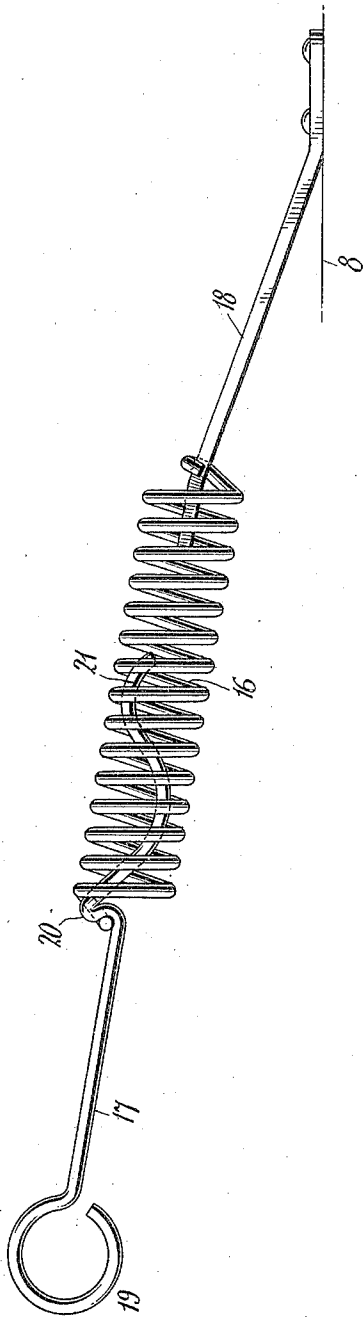


FIG. 4

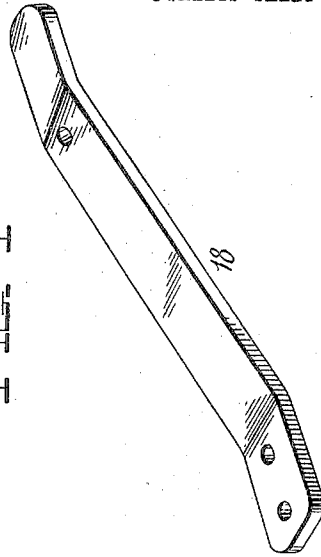
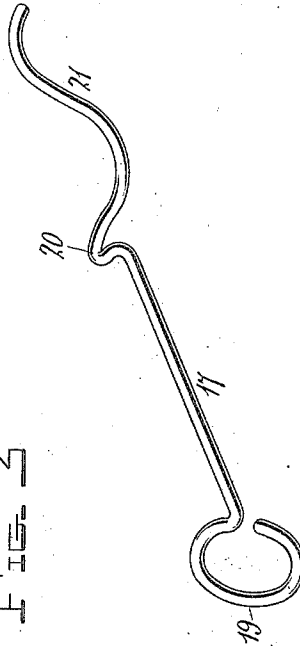


FIG. 3



Witnesses

J. J. [Signature]
H. C. [Signature]

Inventor

Carl M. Hanna

By

[Signature]

Attorneys

UNITED STATES PATENT OFFICE.

CARL M. HANNA, OF DEL NORTE, COLORADO.

ATTACHMENT FOR SHEAF-CARRIERS.

948,013.

Specification of Letters Patent.

Patented Feb. 1, 1910.

Application filed November 9, 1908. Serial No. 461,785.

To all whom it may concern:

Be it known that I, CARL M. HANNA, a citizen of the United States, residing at Del Norte, in the county of Rio Grande, State of Colorado, have invented certain new and useful Improvements in Attachments for Sheaf-Carriers; 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 same.

The present invention has reference to sheaf carriers for harvester binders, and more particularly to the mechanism for operating the same.

The sheaf carriers in use at the present time in connection with machines of the type specified above, are arranged to receive the sheaves from the binding devices, and after a certain number of sheaves have been deposited thereupon, the carrier will swing downwardly automatically under the weight of the sheaves, which latter will be dumped upon the ground usually at some particular spot, as is generally understood. In most instances, it has been found desirable, if not essential, to raise the carrier into operative position after the completion of each dumping, by means of the application of foot pressure upon a bent lever mounted upon the foot-board of the machine. This operation, however, is at best difficult, owing to the weight of the carrier.

It is the principal object of this invention, therefore, to obviate such difficulty by the provision of an exceedingly simple device arranged for connection at one end with the foot-board or with some stationary member mounted thereon, and at the other end with the foot lever, the device including among its elements, a stiff coil spring which is tensioned by the downward movement of the carrier, and will thus automatically return the latter to its normal or operative position, when the pressure upon the foot lever is relieved.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which corresponding parts are designated by the same reference characters throughout the several views.

Of the said drawings, Figure 1 is a perspective view showing the application of the carrier returning device. Fig. 2 is an enlarged detail view of the device itself. Figs.

3 and 4 are detail views, respectively, of the hook and strap members of the device.

Referring more particularly to the drawings, 7 designates the cranked foot-lever which is journaled upon the foot board 8 in proximity to the seat 9. One crank of the lever has pivoted thereto the rear end of the rod 10 which connects said lever with the downwardly-inclined rod 11 that operates the carrier 12 through its connection 13 with the horizontal rock-shaft 14, which latter forms one element of the carrier.

The particular devices employed for connecting the rock-shaft to the operating rod, and the specific type of carrier made use of form no part of this invention, for which reason, no extended description thereof is given, these elements being present in all harvester binders now in general use. With reference to the operating rod, however, it may be stated that such rod is capable of a partial rotation or rocking movement, and that its upper end is preferably formed with a lateral arm 15 to which the front end of the connecting rod 10 is pivoted.

The dumping operation of the carrier likewise requires no extended description, it being sufficient to state that when the driver wishes to drop the sheaves which have been deposited upon the carrier from the bundling mechanism, he rocks the lever 7 by foot-pressure, thus imparting an endwise rearward movement to the connecting rod 10, which latter in turn, rocks the inclined rod 11, whereupon the carrier will be caused to swing downwardly by reason of its operating connection 13 with the last mentioned rod, the sheaves falling off the carrier during such movement.

The device for returning the carrier to its normal or operative position at the completion of the dumping, comprises three elements, viz.: a stiff retractile coil spring 16, a hook 17, and a metal strap 18. The hook is formed at its rear end with an eye 19, which is engaged with that crank of the lever to which the rear end of the connecting rod is pivoted. Adjacent its front end, the hook is bent upon itself to form a shoulder 20, which is set at an angle to the shank of the hook and extends toward the eye end thereof, said shoulder being arranged for detachable engagement with the adjacent terminal of the spring, as shown in Fig. 2, the forward member of the shoulder terminating in a

double-bowed or S-shaped tongue 21. This tongue extends through the spring and by reason of its particular shape serves to hold said spring against lateral movement, thus obviating the danger of the shoulder becoming accidentally disengaged from the above mentioned terminal of the spring. The other terminal of the spring is inserted through a perforation formed in the rear end of the strap 18, to which latter said terminal is made fast in any preferred manner, the strap itself being bolted or otherwise rigidly secured at its forward end to the foot-board 8. The strap likewise projects an appreciable distance through the spring and thus coöperates with the tongue in holding the spring against displacement.

When the driver removes his foot from the lever at the completion of the dumping, the spring, which has been tensioned by the actuation of said lever, will retract, returning the latter to its original position, the return movement of the lever moving the connecting rod in the opposite direction from which it was moved by the actuation of the lever. This movement of the connecting rod will in turn rock the operating rod which in turn effects an upward movement of the carrier by reason of its connection therewith. It will thus be apparent that as soon as the pressure upon the foot lever is relieved, the carrier will automatically return to its operative position, the return movement of the carrier being effected by the spring which is connected at one end with the foot-board and at the other end with the lever.

By reason of the fact that both the eye end of the hook and the rear end of the rod 10 are connected to the same arm of the foot lever, the spring will constantly tend to thrust said rod in a forwardly direction, as will be apparent, thus holding the same normally at the limit of its forward movement and the carrier in its raised or operative position. Owing, moreover, to the above described separable connection between the hook and spring, these members may be readily disengaged from each other, in the event of either becoming injured, by merely moving the hook longitudinally within the spring coil a sufficient distance to release the shoulder 20 from engagement with the terminal of the spring, whereupon the hook may then be withdrawn. This disengagement may also be resorted to in instances where it is desired for any reason to deposit the sheaves one at a time, in which case the carrier is maintained in its lowered position by the weight of the sheaves as they pass thereover.

What is claimed is:

1. In a harvester binder, the combination with a foot board, a crank foot lever journaled thereupon, a pivoted carrier, and con-

nections between the foot lever and the carrier; of a hook pivoted to one arm of said lever, a strap secured to said board, and a spring connecting said hook and strap directly together for yieldingly holding the lever in one position, said spring having one end thereof attached to said strap and the other end separably engaged with said hook.

2. In a harvester binder, the combination with a foot board, a crank foot lever journaled thereupon, a pivoted carrier, and connections between the foot lever and the carrier; of a hook pivoted to one arm of said lever, a strap secured to said board, and a coil spring connecting said hook and strap directly together for yieldingly holding the lever in one position, said spring having one end thereof attached to said strap and the other end separably engaged with said hook, said strap and hook extending inwardly of said spring, to hold the same against lateral movement.

3. In a harvester binder, the combination with a foot board, a crank foot lever journaled thereupon, a pivoted carrier, and connections between the foot lever and the carrier, of a hook pivoted to one arm of said lever and formed with a lateral projecting portion, a strap secured to said board, and a spring connecting said hook and strap directly together, for yieldingly holding the lever in one position, said spring having one end thereof attached to said strap and the other end separably engaged with said lateral projecting portion.

4. In a harvester binder, the combination with a foot board, a crank foot lever journaled thereupon, a pivoted carrier, and connections between the foot lever and the carrier; of a hook pivoted at its rear end to one arm of said lever and formed intermediate its ends with a laterally projecting portion, a strap secured to said board in advance of said lever, and a coil spring connecting said hook and strap directly together for yieldingly holding said lever in one position, said spring having one end thereof attached to said strap and the other end separably engaged with said laterally projecting portion, said strap and the forward portion of said hook extending inwardly of said spring, to hold the same against lateral movement.

5. In a harvester binder, the combination with a foot board, a crank foot lever journaled thereupon, a pivoted carrier, and connections between the foot lever and the carrier; of a hook pivoted at its rear end to one arm of said lever, said hook being bent intermediate its ends to form a laterally projecting portion and its ends terminating in an S-shaped tongue, a rearwardly and upwardly inclined strap secured at its front end to said board in advance of said lever; and a coil spring connecting said hook and strap directly together for yieldingly hold-

ing said lever in one position, said spring having one end thereof attached to said strap and the other end separably engaged with said laterally projecting portion, said tongue and the upper end of said strap extending inwardly of said spring to hold the same against lateral movement.

6. In a harvester binder, the combination with the carrier; the foot lever; connections between the latter and the carrier; means for raising and maintaining the carrier in elevated position after same has been lowered; and a pivoted member separably engaging said carrier raising means with said lever.

7. In a harvester binder, the combination with the carrier; the foot lever; connections between the latter and the carrier; a spring for automatically raising and maintaining

the carrier in elevated position after same has been lowered; and a pivoted member detachably securing said spring to said lever.

8. In a harvester binder, the combination with the carrier; the foot lever; connections between the lever and the carrier whereby movement of the lever will raise and lower the carrier; a spring for automatically raising and maintaining the carrier in elevated position after same has been lowered; and a member pivoted to the lever and detachably engaging said spring.

In testimony whereof, I affix my signature, in presence of two witnesses.

CARL M. HANNA.

Witnesses:

EMMA BINGEL,
J. C. WILEY.