

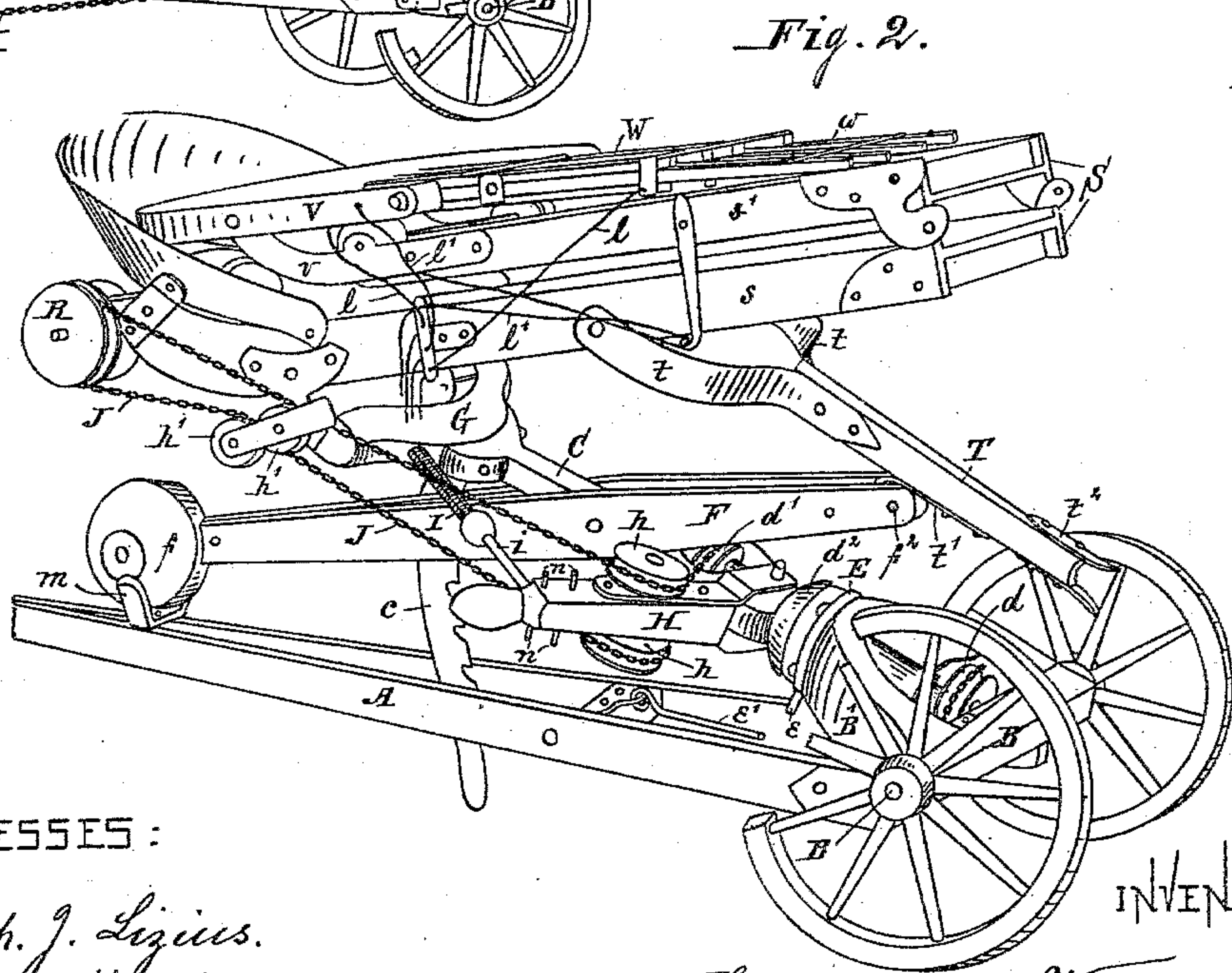
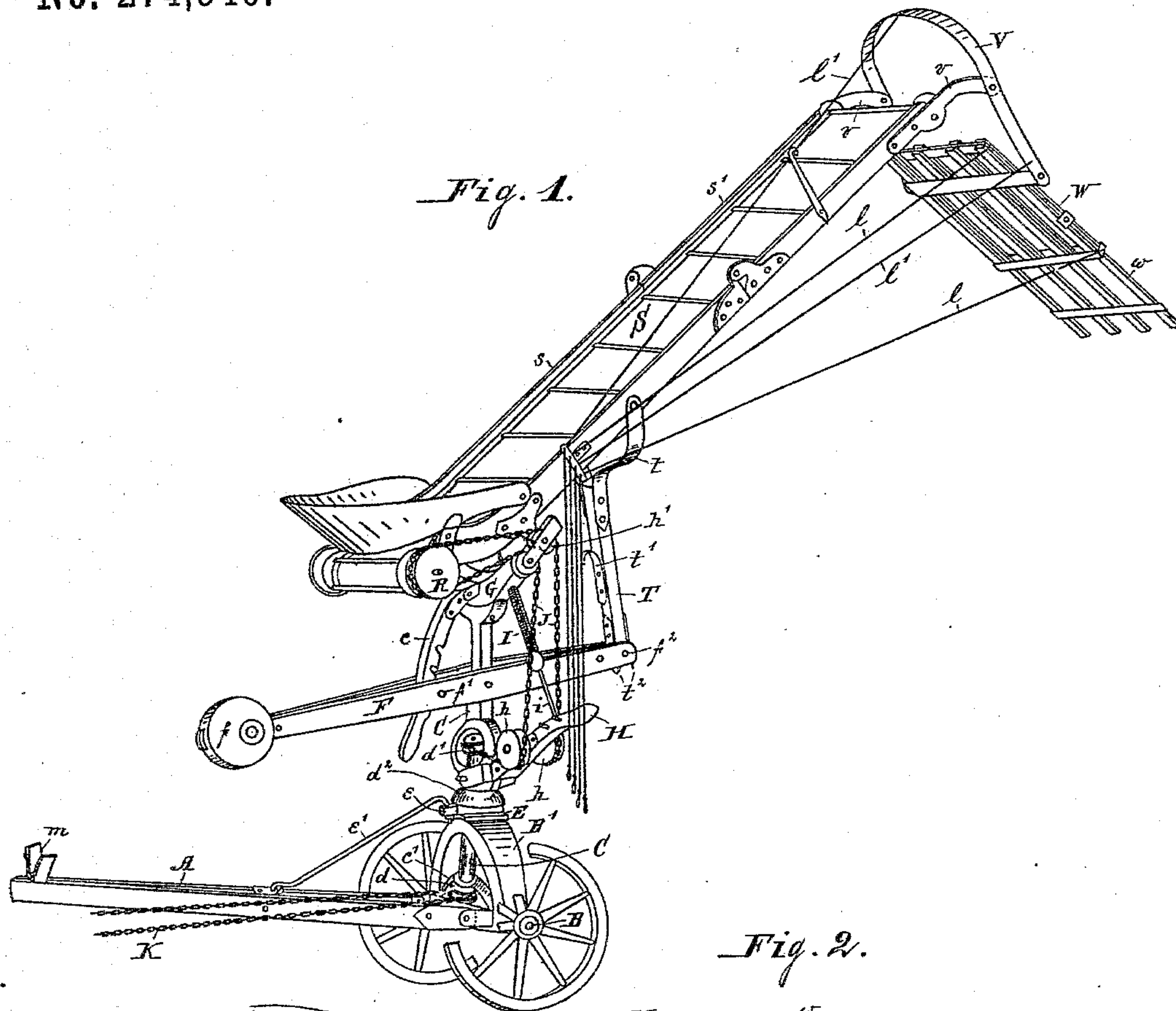
(No Model.)

2 Sheets—Sheet 1.

G. W. WILLIAMSON.
STRAW STACKING MACHINE.

No. 274,540.

Patented Mar. 27, 1883.



WITNESSES:

Bernh. J. Lizius.
Gottf. Koehler

INVENTOR:

George Warren Williamson.
Per James B. Lizius & Co.
Attorneys.

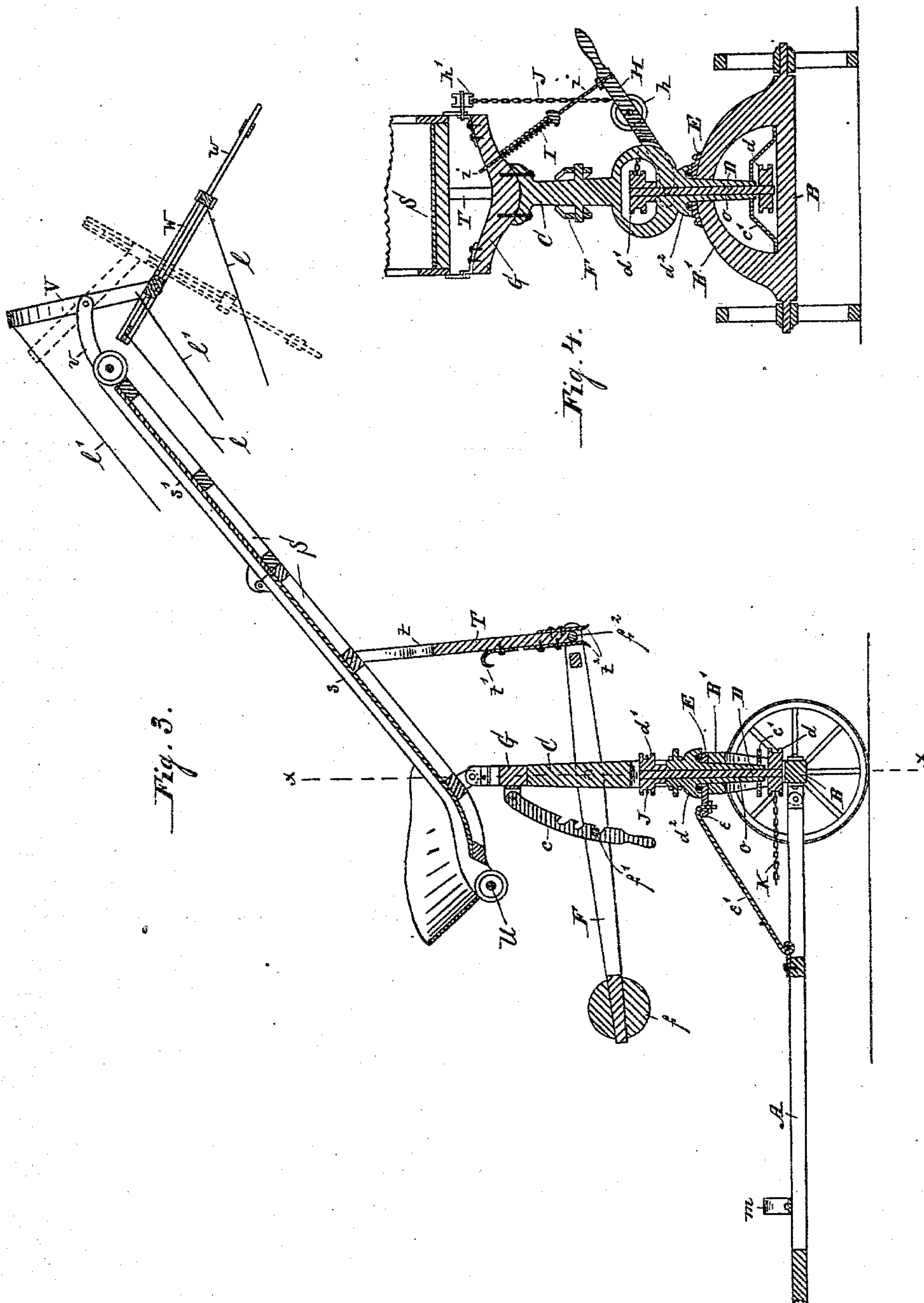
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UNITED STATES PATENT OFFICE.

GEORGE W. WILLIAMSON, OF NEW ROSS, INDIANA, ASSIGNOR OF ONE-HALF
TO GEORGE W. WILLIAMSON, SR., OF SAME PLACE.

STRAW-STACKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 274,540, dated March 27, 1883.

Application filed January 10, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WARREN WILLIAMSON, a citizen of the United States, residing at New Ross, in the county of Montgomery and State of Indiana, have invented a new and useful Straw-Stacking Machine, of which the following is a specification.

My invention relates to improvements in straw-stacking machines operated in conjunction with a thrashing-machine; and the objects of my improvements are, first, to dispense with the derrick or the like common to all machines; secondly, to distribute the straw on and around stack to a better advantage than heretofore; thirdly, to dispense with a turn-table and all cog-wheels; fourthly, to make a simpler running-gear, one less liable to get out of order, and one more easily repaired when broken; fifthly, to facilitate transportation. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective of the machine ready for operation. Fig. 2 is a perspective of the machine folded, ready for transportation. Fig. 3 is a longitudinal vertical section of the entire machine. Fig. 4 is a vertical cross-section on line *x x* of Fig. 3.

The same letters of reference refer to the same or corresponding parts throughout the several views.

The tongue-hound A is provided with socket *m* to receive counter-balance *f* of lever F when the machine is folded ready for transportation. Hounds A are hinged to axle B. To axle B is secured bearing *c'*, through which passes lower part of standard C. Shoulder B' forms part of axle B, and has a socket-plate, E, through which passes standard C, and on which standard C is operated. Plate E has an eye, *e*, to receive one end of brace *e'* during the operation of the machine. The other end of brace *e'* is hinged to hounds A. Standard C has a shoulder, *d*², with a groove on under side to receive anti-friction balls, said balls operating on socket-plate E of shoulder B'. In lower part of standard C is bore *o*, in which spindle D operates sprocket-wheels *d* and *d'*. To standard C is pivoted lever H, on which are idlers *h h*, rod *i*, spring I, and hooks or pins

n n. By lever H standard C is turned, and with it the straw-stacker, in any direction desired without stopping the machine. Lever F, with counter-balance *f*, ties *f'* and *f*², is pivoted to standard C, and is held in the position desired by ratchet-lever *c*, hooked on tie *f'*. Lever *c* is pivoted to T-bearing G. T-bearing G is bolted to standard C. Carrier-frame S is pivoted to T-bearing G, and is formed of two leaves, *s* and *s'*, hinged together. Carrier-frame S is raised and lowered by lever F, in conjunction with post T. Arms *t t* of post T are pivoted to leaf *s* of carrier-frame S, and it is held in the position desired by hook *t'* or socket *t*² of post T, resting on tie *f*² of lever F. To leaf *s* of carrier-frame S are secured the idlers *h' h'*. Endless chain J is operated by sprocket-wheel *d'* on spindle D in standard C, idlers *h h* on lever H, idlers *h' h'* on leaf *s* of carrier-frame S, and sprocket-wheel R on shaft U, which operates belts and slats of straw-carrier. To the end of leaf *s'* of carrier-frame S are secured arms *v v*. Arched lever V is pivoted to arms *v v*, and is operated by and held in any desired position by ropes *l' l'* and hooks or pins *n n* on lever H. To arched lever V is pivoted the telescopic distributor W, with extension *w*. Distributer W is operated and held in any desired position by ropes *l l* and hooks or pins *n n* on lever H. Endless chain K is run by a sprocket-wheel on the thrashing-machine, and operates sprocket-wheels *d* and *d'* on spindle D in bore *o* of standard C. Sprocket-wheel *d'* operates straw-carrier on shaft U by endless chain J. Said chain passes around sprocket-wheel *d'* on spindle D, idlers *h h* on lever H, idlers *h' h'* on leaf *s* of carrier-frame S, and sprocket-wheel R on shaft U. Said shaft operates the straw-carrier. The standard C turns on anti-friction balls, which operate between socket-plate E on shoulder B' and in groove on under side of shoulder *d*² on standard C. Standard C is held in its proper position by its lower end passing through socket-plate E on shoulder B' and through bearing *c* on axle B, in conjunction with spindle D, sprocket-wheels *d* and *d'* in chamber *o* of standard C. Arched lever V is operated by ropes *l' l'* to throw its lower end either close to the

machine or out from the machine, and the telescopic distributor is operated by ropes *l l*, so that the straw can be received at the top of the distributor and thrown to the outside of the pile; or distributor can be reversed and the straw thrown to inside of the pile near the machine; or the distributor can be thrown free from the machine, hanging perpendicularly, and the straw from the carrier discharged on the top of the pile. When machine begins to discharge the straw the extension *w* in distributor *W* is drawn out to throw straw as far from the machine as possible in any direction desired; but as the pile of straw increases and the extension *w* interferes with the operating of the distributor, the extension *w* is telescoped into distributor *W*. The lever *H* is pivoted to standard *C*, and is kept in its proper position with endless chain *J*, stretched tight over the sprocket-wheels and idlers by spring *I* on rod *i*.

To prepare the machine for transportation, leaf *s'* of carrier-frame *S* is folded over upon leaf *s* of carrier-frame *S*. The distributor *W* is folded on top of leaf *s'*, ratchet on lever *c* is removed from tie *f'* of counter-balance *F*, and socket *t²* is raised from tie *f²* of counter-balance *F*. Carrier-frame *S* is then lowered, with hook *t'* resting on tie *f²* of counter-balance *F*, brace *e'* is removed from eye *e* on socket-plate *E*, and machine lowered onto tongue-hounds *A*, with weight *f* of lever *F* resting in socket *m* on tongue-hounds *A*. The machine is then ready for transportation, as shown in Fig. 2.

What I claim, and desire to secure by Letters Patent, is—

1. The combination, in a straw-stacking machine, of axle *B*, tongue-hound *A*, hinged thereto, socket *m*, brace *e'*, bearings *c' c'*, and

B', socket-plate *E*, and eye *e*, as described and specified.

2. The combination, in a straw-stacking machine, of axle *B*, bearings *c'* and *B'*, socket-plate *E*, eye *e*, standard *C*, *T* bearing *G*, and carrier-frame *S*, as described and specified.

3. The combination, in a straw-stacking machine, of axle *B*, bearings *c'* and *B'*, socket-plate *E*, shoulder *d²*, and anti-friction sustaining-rollers, as described and specified.

4. In a straw-stacking machine, the combination of endless chain *K*, spindle *D*, sprocket-wheels *d* and *d'*, tubular standard *C*, lever *H*, idlers *h h*, rod *i*, spring *I*, idlers *h' h'*, carrier-frame *S*, sprocket-wheel *R*, shaft *U*, and endless chain *J*, as described, and for the purpose specified.

5. The combination, in a straw-stacking machine, of standard *C*, lever *F*, counter-weight *f*, ties *f'* and *f²*, ratchet-lever *c*, carrier-frame *S*, post *T*, with arms *t t*, hook *t'*, and socket *t²*, as shown and specified.

6. In a straw-stacking machine, the combination of carrier-frame *S*, arms *v v*, arched lever *V*, ropes *l' l'*, distributor *W*, ropes *l l*, and lever *H*, provided with hooks or pins *n n*, as described and specified.

7. The combination, with distributor *W*, in a straw-stacking machine, of extension *w*, as described, and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE WARREN WILLIAMSON.

Witnesses:

BERNH. J. LIZIUS,
GOTTF. KOEHLER.