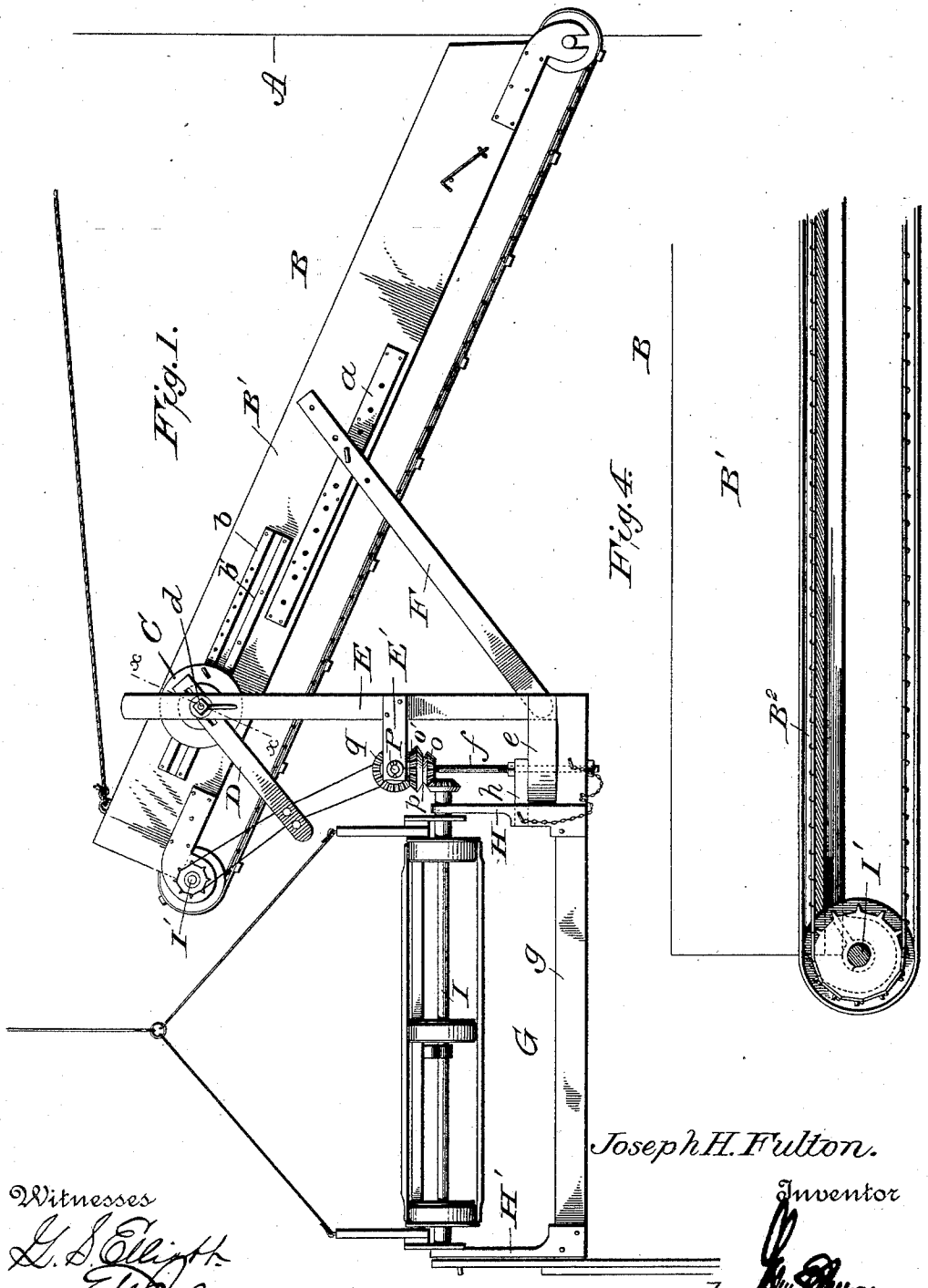
(No Model.) 3 Sheets—Sheet 1.

J. H. FULTON.

STRAW CARRIER FOR THRASHING MACHINES.

No. 485,099. Patented Oct. 25, 1892.



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(No Model.) 3 Sheets—Sheet 2.

J. H. FULTON.

STRAW CARRIER FOR THRASHING MACHINES.

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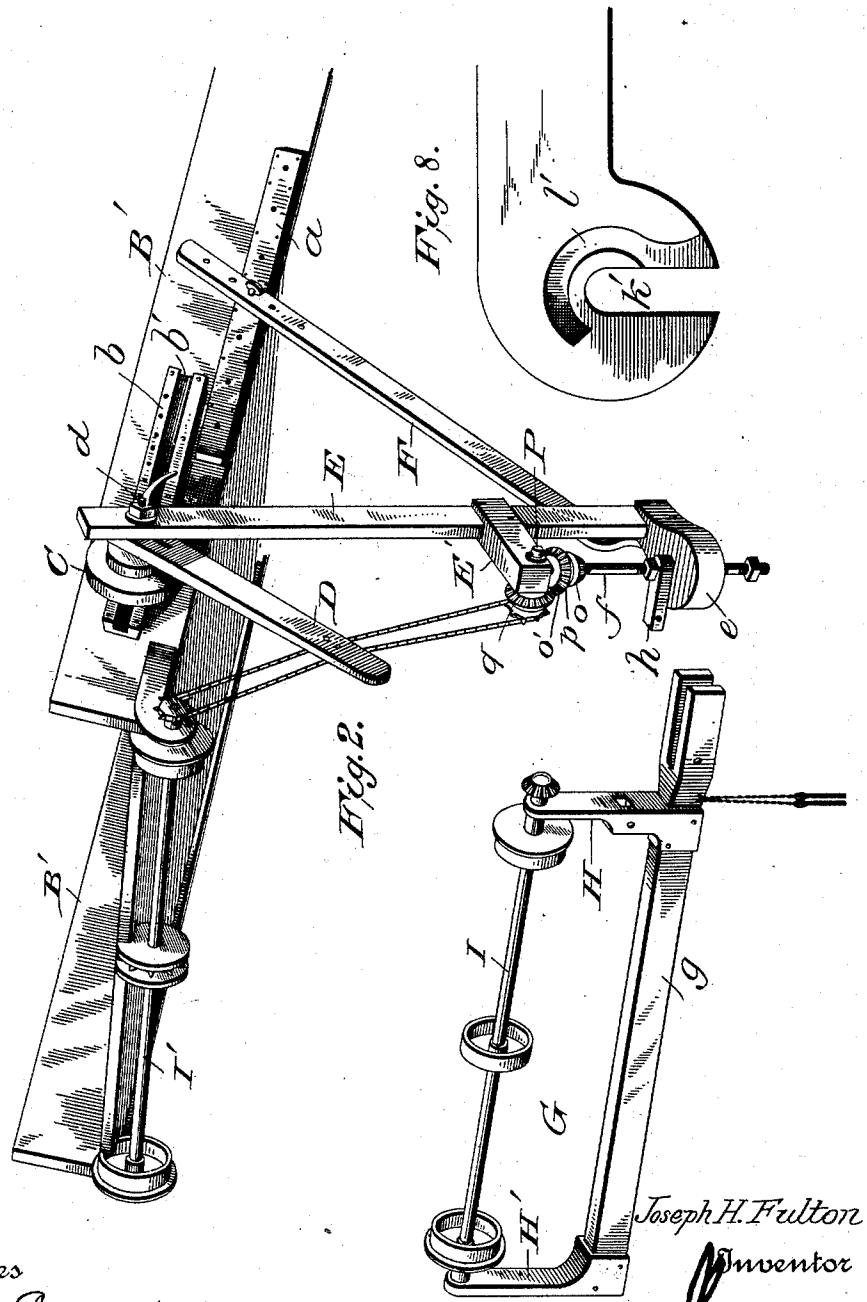

Fig. 2.

Fig. 8.

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(No Model.) 3 Sheets—Sheet 3.

J. H. FULTON.

STRAW CARRIER FOR THRASHING MACHINES.

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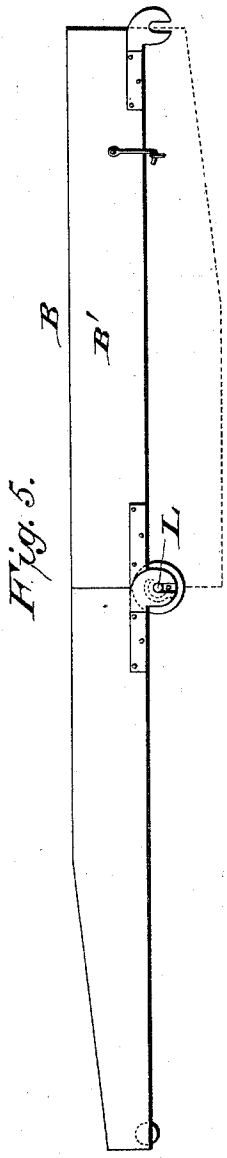

Fig. 5.

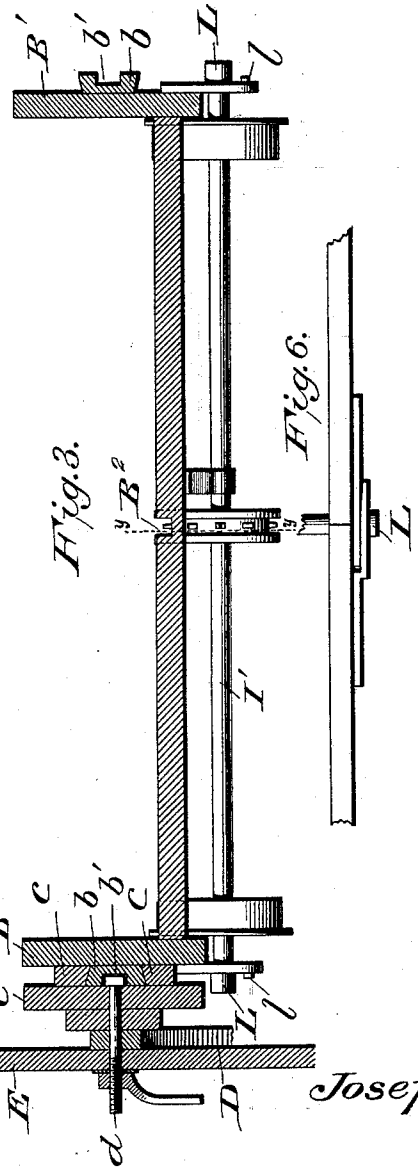

Fig. 3.

Fig. 6.

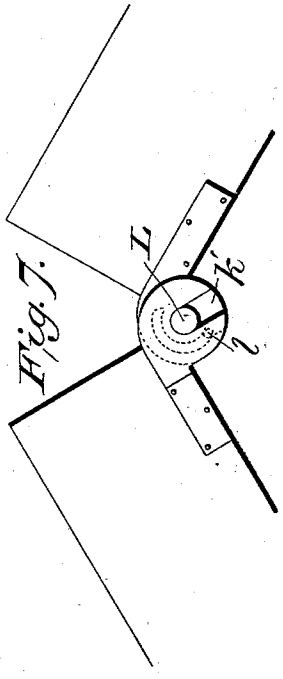

Fig. 7.

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UNITED STATES PATENT OFFICE.

JOSEPH H. FULTON, OF WEST LEBANON, PENNSYLVANIA.

STRAW-CARRIER FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 485,099, dated October 25, 1892.

Application filed June 30, 1892. Serial No. 438,570. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. FULTON, a citizen of the United States of America, residing at West Lebanon, in the county of Indiana and State of Pennsylvania, have invented certain new and useful Improvements in Straw-Carriers for Thrashing-Machines; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in straw-carriers.

The object of the invention is to provide an improved device for carrying away the straw from a thrashing-machine, the same being designed more especially as an improvement upon my patent, dated October 22, 1889, No. 413,251.

In the accompanying drawings, forming part of this specification, Figure 1 is a side view showing my improved elevator or carrier in position for use. Fig. 2 is a perspective view of the mechanism attached to the section which is connected to the thrashing-machine. Fig. 3 is a sectional view taken through the line *x x* of Fig. 1. Fig. 4 is a longitudinal section taken through the line *y y* of Fig. 3. Fig. 5 is a side elevation of two sections of the carrier connected to each other. Figs. 6 and 7 are plan and side views of the joints used to connect the sections. Fig. 8 is a detail view of one part of the joint.

A designates the end part of a thrashing-machine, to which the section B of the elevator or carrier is suitably connected, so that it can be raised and lowered. The side pieces B′ of the section or frame B have attached thereto strips *a* and *b*, which are perforated for the reception of retaining-pins, as shown, the strip *b* also having a groove or recess *b′*, and the outer edges thereof are beveled or undercut.

C designates a disk, to which are secured parallel strips *c c*, having beveled inner edges, which engage with the beveled edges of the strip *b*, and through the center of this disk passes a bolt, the head of which is adapted to lie in the groove or recess *b′*. The outer face of the disk carries a circular block, upon which is placed a belt-tightener D, said belt-tightener being made up of a bar having a slotted end, through which the bolt *d* passes, while it is provided near its opposite end with pins which retain suitable rollers or guides for the sprocket chain or belt.

Beyond the belt-tightener and upon the bolt *d* is secured a bar or standard E, which is retained in an adjusted position by a bar F, extending therefrom to the strip *a*, to which it is secured by a retaining-pin, as shown. This standard at or near its lower end carries a foot or step *e*, above which is a projecting arm E′, the foot and arm providing bearings for shafts, upon which gear-wheels are mounted.

G designates a frame or section, which is adapted to be secured to the frame B at a suitable angle therewith, and the beam *g* of this frame is extended to lie beneath the foot *e*, said extended end being bifurcated, so as to embrace the lower end of the shaft *f*, a block *h* being located on the shaft above the foot and passed into an upright H, mounted on the beam. When the section G has been placed in position, it is secured by pins, as shown, and can be swung horizontally to any desired angle. The uprights H and H′ of the section provide journals for a transverse shaft I, carrying suitable pulleys over which the carrier-belts pass, said shaft also having a beveled wheel at one end which engages with the lower teeth *o* of the double-geared wheel *p*, mounted on the shaft *f*, the upper teeth *o′* of said gear-wheel meshing with a gear-wheel *q*, keyed on a stub-shaft P, said stub-shaft being journaled in bearings carried by the arm E′ and is capable of being removed from its bearings and reversed. A sprocket-wheel is carried by the shaft at the upper end of the section B and is connected by a chain with a sprocket-wheel carried by the shaft P. By having the stub-shaft P reversible in its bearings the frame G may be shifted to the opposite side of the section B and the same mechanism employed for driving the carrier-belts.

The main or first section is provided with a floor over which an endless carrier-belt passes, said floor being provided with a central longitudinal groove B^2, within which the sprocket-chain which communicates motion

from the thrashing-machine passes. This sprocket-chain lies within the endless carrier-belt, the sprocket-wheels around which it passes being of less diameter than the pulleys over which the carrier-belt passes. The sprocket-wheels are provided on each side with enlarged collars, over which the carrier-belt passes, said belt also passing over rollers or pulleys located at each end of the shafts I'.

When it is desired to carry the straw a greater distance in a direct line, additional sections may be secured to the section B by means of couplings constructed as shown, said couplings consisting of two parts, the one to which the shaft or connecting-bar I' is secured having an outwardly-projecting portion L, beneath which is a lug *l*, while the other has an open-ended slot *k'* and a groove or recess *l'*, which is concentric with said slot for a short distance and then merges into the same near its lower end.

When the two parts of the coupling are placed together, a tight joint will be made and the parts can be readily separated when desired. The extensions or additional sections are interchangeable and may be of different lengths and may be also folded upon each other, as shown by dotted lines in Fig. 5.

The attachments for thrashing-machines herein shown and described can be readily set up as a carrier of different lengths, preferably four in number, or, as a side carrier of three lengths, can be arranged at any desired angle, and when the parts are detached and folded they can be stowed away to occupy but little space.

Having thus described my invention, I claim—

1. In a straw-carrier, an elevator-frame B, having sides B', and a floor, shafts connected to the sides and provided with pulleys over which the carrier-apron passes, sprocket-wheels mounted centrally on said shafts between the central pulleys of the shafts, the floor of the frame having a longitudinal groove or recess within which the sprocket-chain lies, so as to be located within the carrier-apron, substantially as shown, and for the purpose set forth.

2. In a straw-carrier for thrashing-machines, a coupling for the carrier-sections, consisting of two plates, one of which has a central projection and a lug *l* to one side of said projection and the other having a slot and a recess *l'*, the slot being adapted to receive the projection and the recess the lug, substantially as shown, and for the purpose set forth.

3. The combination, in a straw-carrier, of coupling-plates carried by the ends of the sections which make up the same, the plates carried by one end of each section having central projections L and lugs *l*, adjacent thereto, the coupling-plates on the opposite end of each section being provided with open-ended slots which receive the projections L and with recesses *l'*, which are concentric with the slots for a short distance and then open into the same, said recesses being adapted to receive the lugs, substantially as shown, and for the purpose set forth.

4. In a straw-carrier, the combination of a frame which is adapted to be pivotally attached to a thrashing-machine, bars E and F, adjustably connected to said frame, the bar E having an arm and foot-piece with bearings for a vertical shaft *f*, the arm also carrying a horizontal shaft, gear-wheels mounted on said shafts, a frame G, adapted to be secured to the foot-piece *e*, said frame having a shaft with pulleys, and a gear-wheel which meshes with the gear-wheel mounted on the vertical shaft *f*, substantially as shown, and for the purpose set forth.

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

JOSEPH H. FULTON.

Witnesses:
NANNIE CALHOUN,
NANCY OLIVER.