J. HUBLER.

BALING PRESS.

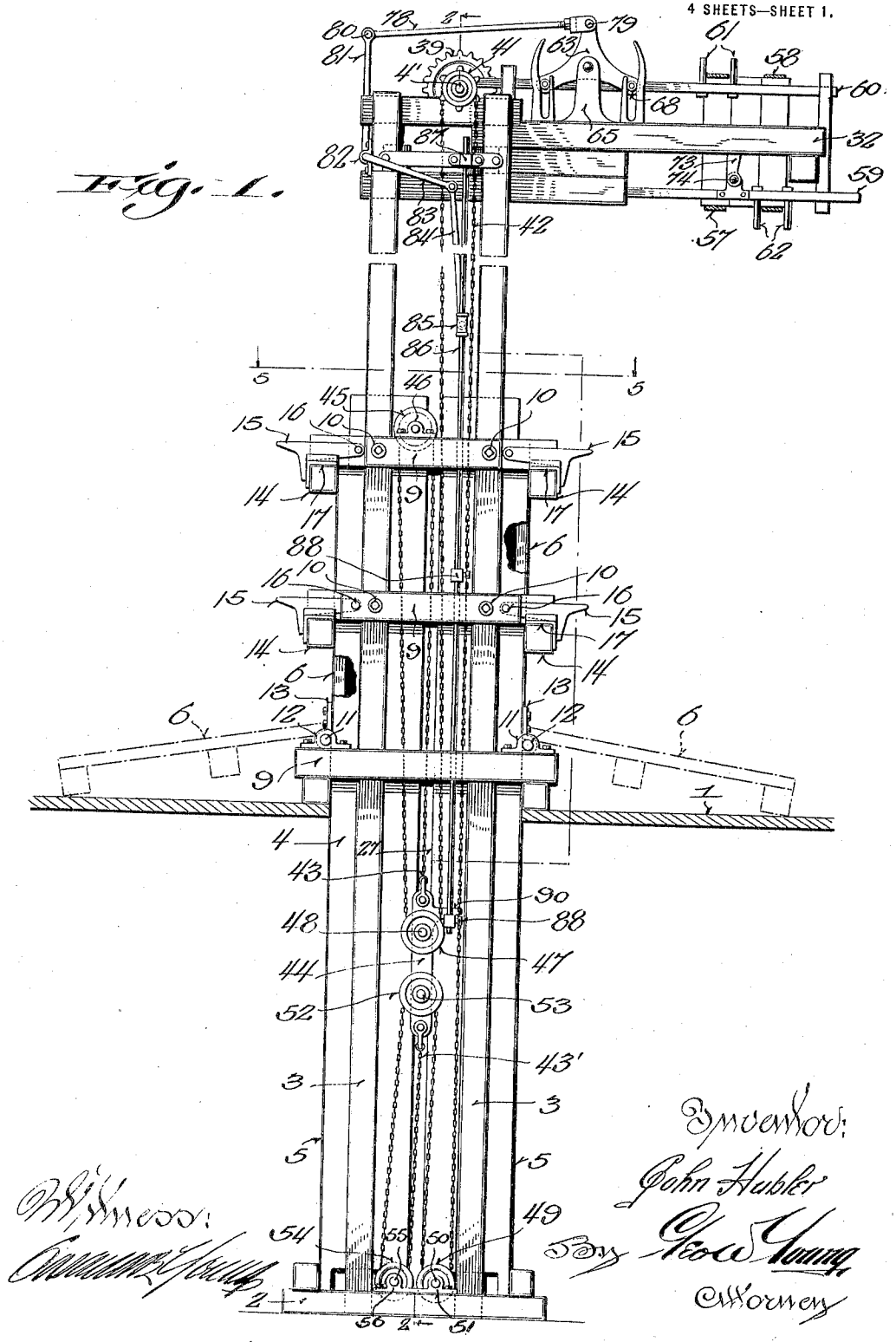
APPLICATION FILED JUNE 2, 1917.

1,315,960.

Patented Sept. 16, 1919.

4 SHEETS—SHEET 1.

Fig. 1.



Witness:

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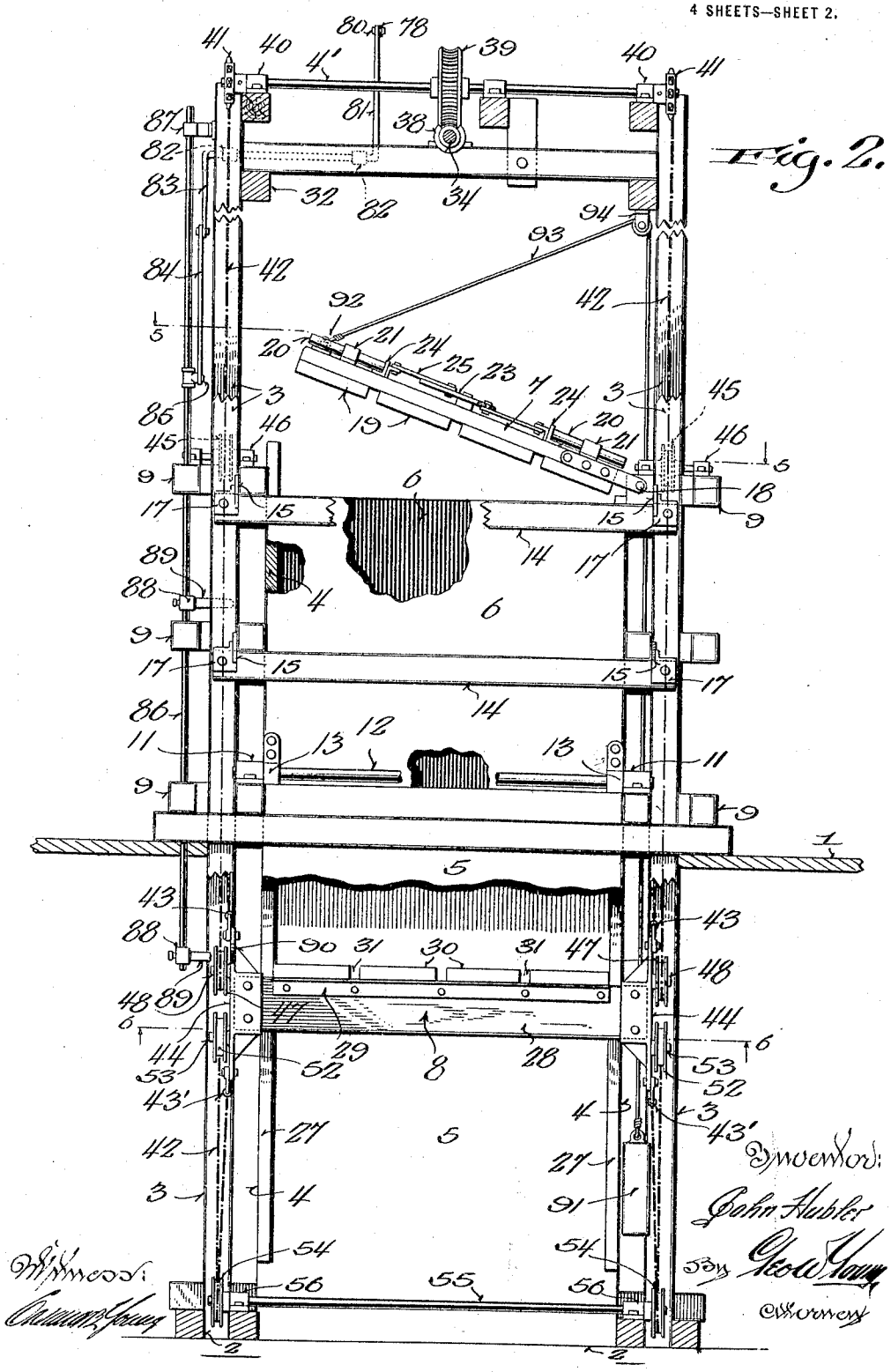
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4 SHEETS—SHEET 2.

Fig. 2.



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4 SHEETS—SHEET 3.

Fig. 3.

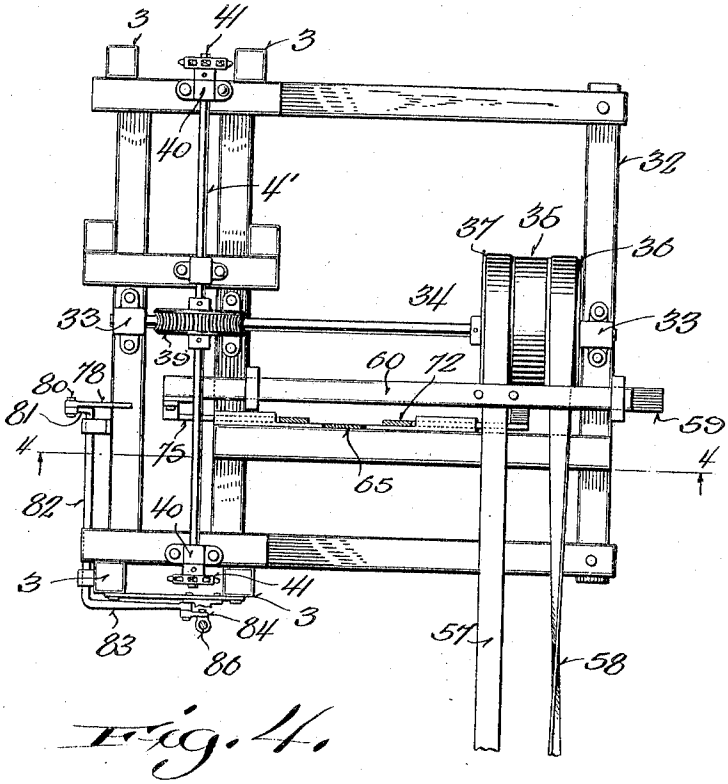
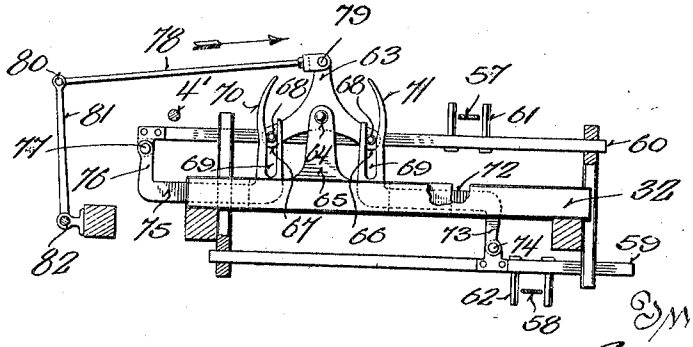


Fig. 4.



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4 SHEETS—SHEET 4.

Fig. 5.

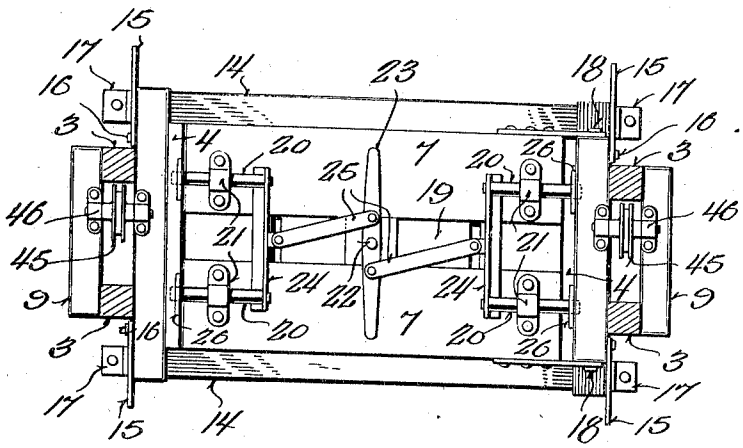
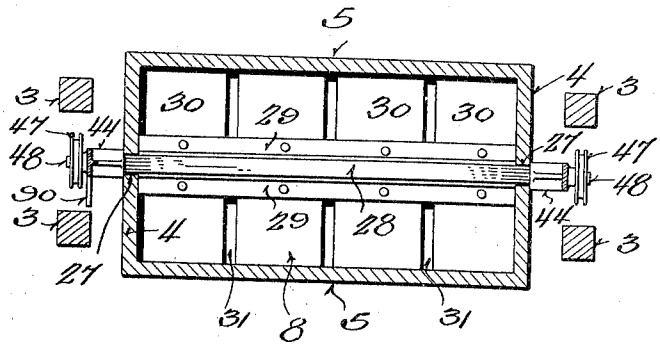


Fig. 6.



Witness:

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UNITED STATES PATENT OFFICE.

JOHN HUBLER, OF BRANDON, WISCONSIN.

BALING-PRESS.

1,315,960. Specification of Letters Patent. Patented Sept. 16, 1919.

Application filed June 2, 1917. Serial No. 172,394.

To all whom it may concern:

Be it known that I, JOHN HUBLER, a citizen of the United States, and resident of Brandon, in the county of Fond du Lac and State of Wisconsin, have invented certain new and useful Improvements in Baling-Presses; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to certain new and useful improvements in baling presses and refers particularly to a press especially adapted for use in baling hemp.

The primary object of this invention is in the provision of a unitary structure whereby the material to be baled can be readily pressed and bound into any desired size as more particularly hereinafter described.

A further object of this invention is the provision of a baling press in which the pressure is applied from the underneath side and which is so constructed as to permit the ready tying of the bale when same has been pressed.

A still further object of this invention is in the provision of novel means for applying the pressure to the under side of the press, said means having adjustable regulating stops therefor for regulating the size of bale desired.

Another object of this invention is the provision of a baling press of the character stated, which, while so constructed as to make it especially desirable for use in baling hemp, still may be as economically employed in the baling of any other material such as rags, paper, hay, or the like.

With the above and other objects in view which will appear as the description proceeds my invention resides in the novel construction, combination and arrangement of parts as hereinafter described and more particularly defined by the appended claim, it being understood that such changes in the precise embodiment of the herein-disclosed invention may be made as come within the scope of the claim.

In the accompanying drawings I have illustrated one complete example of the physical embodiment of this invention constructed according to the best mode I have so far devised for the practical application of the principles of my invention, in which:

Figure 1 is a side elevational view of my invention.

Fig. 2 is a view taken on the plane indicated by line 2—2 of Fig. 1, the top hatch or cover being shown as partly open.

Fig. 3 is a top plan view of the driving means located upon the upper end of the standards or uprights, the belt shifting means being removed.

Fig. 4 is a view taken on line 4—4 of Fig. 3 illustrating the novel means I employ in shifting the operating belts.

Fig. 5 is a view looking down on the top of the bale compartment, said view being taken on the plane indicated by line 5—5 of Fig. 2, and

Fig. 6 is a sectional view looking upward at the underneath portion of the baling compartment, said view being taken on line 6—6 of Fig. 2.

My invention is generally disposed with its lower portion projecting down through a floor as indicated at 1 and has its base 2 resting upon the ground or floor therebelow, upward from which extends the two pairs of uprights or standards 3 in which the bale press proper is mounted.

The baling press comprises a pair of end walls 4 extending from near the base of the uprights to a position approximately midway of the floor 1 and the top of the uprights, and side walls 5 which extend from the base of the uprights to a position slightly above the floor 1, the sides being continued by the doors or hinged portions 6 hereinafter described, a hinged hatch or cover 7 being provided at the top thereof and a vertically movable bottom 8 in the bottom thereof. Connecting or strengthening each pair of uprights 3 are the cross braces 9 secured to the uprights by suitable bolts or other fastenings 10, and to the lowermost of these braces are secured the bearings 11 having mounted therein transverse shafts 12 having journaled thereon boxes 13 carried by the doors 6. These doors 6 have each extending transversely thereacross a pair of beams or braces 14 which project outwardly from the sides thereof for engagement with the hook or hasps 15 pivoted at 16 to certain

of the braces 9, a keeper 17 being carried by the ends of the bars 14 for engagement with the hooks 15.

The hatch or cover 7 is pivoted as at 18 to one side of the baling press proper and has on its inner face a series of spaced boards 19 and has mounted on the top thereof the two pairs of keeper bolts 20 slidably mounted in bearings 21 fixed to the upper side of said hatch and pivoted at 22 to which is an operating handle 23 connected to a transverse angle iron bar 24 fixed to the inner end of the bolts 20, by means of links 25, said bolts being adapted to engage keepers 26 in the tops of the end walls as clearly illustrated in Fig. 5.

Extending centrally up the end walls are the slots or guides 27 through which extend the ends of the cross beam 28 forming part of the bottom 8 of the press.

A pair of supporting angle iron plates 29 are secured to the upper face of this cross beam 28 for supporting the boards 30 spaced as at 31 and making a snug but readily movable fit within the press. Having thus described the press proper I will now set forth its manner of operation and means for pressing the material disposed therein.

Carried by the uppermost ends of the uprights 3 is a supporting frame 32 in which is journaled as at 33 a transverse shaft 34 carrying the drive pulley 35 and idler pulleys 36 and 37, and secured near the end of the shaft 34 disposed over the baling press is a worm gear 38 in mesh with gear 39 carried by the shaft 4′ disposed at right angles with regard to shaft 34 and journaled in the frame 32 at 40.

The shaft 4′ has fixed on each end thereof a drive sprocket gear wheel 41 over each of which passes a chain 42, and as each of these chains 42 are connected with the movable bottom 8 of the baling press, in a like manner, the description of one will suffice for both.

The chain 42 has its end 43 secured to the upper end of a casting 44 carried by the ends of the beam 28 and passes up and then over the idler pulley 45 journaled at 46 in the uprights, thence down and then around the idler pulley 47 journaled at 48 to the casting 44, thence up again over sprocket 41, then down over an idler wheel 49 carried by transverse shaft 50 journaled at 51 in the base 2, thence up over a second idler wheel 52, journaled at 53 to the casting 44 thence down again over the idler wheel 54 similar to wheel 49 and also carried by transverse shaft 55 journaled at 56 in the base 2 and thence up and having its end 43′ secured to the lower end of the casting 44. Thus it will be seen that by this method of training the chain 42 over the series of idler wheels so arranged, an ample leverage is allowed to be imparted to the bottom 8 when it is being moved upward to press the material in the baling press proper.

The belt 57 engaging the idler pulley 37 is used for moving the bottom 8 upward and the belt 58 engaging bottom 36 is crossed so that it will move the pulley 8 downwardly. For shifting the belts 57 and 58 I employ the novel means hereinafter described which consist in the slidably mounted rods 59 and 60 carrying the forks 61 and 62 for engagement with the belts 57 and 58 respectively and for selectively operating these rods 59 and 60 to operate the press, the three-armed bell crank 63 is employed, pivoted as at 64 in a bracket 65 carried by the frame 32, the arms 66 and 67 of the bell crank having rotatably carried thereby a roller 68 adapted to engage the guide slots or openings 69 of the like arms 70 and 71. The arm 71 has the upwardly extending portion having the slot 69 therein, a horizontal portion 72 slidably mounted in the frame 32 and having the outwardly extending arm or portion 73 pivoted at 74 to the rod 59, and the arm 70 has the upwardly extending arm with the slot 69 therein, a horizontal portion 75 slidably mounted in the frame 32 and the upwardly extending arm 76 pivoted at 77 to rod 60.

Thus it will be seen that when the bell crank 63 is rocked in the direction of the arrow in Fig. 4 the bell crank will draw inwardly the arm 71 shifting the belt 58 to the drive pulley, but will leave the arm 70 stationary, the roller 68 engaging the guide 69 of the arm 70 will merely disengage this arm as will be readily apparent by reference to Fig. 4.

As it will be obvious when the bell crank 63 is returned to its normal position shown in Fig. 4 the belt 58 will again be shifted to its idler pulley 36 and the device will be inoperative, but when it is desired to send or force the bottom 18 upwardly, the bell crank is moved in a direction reversed to that just described when the belt 57 will be shifted to the drive pulley 35 as will readily be seen.

In order that this shifting mechanism may be controlled from below an adjustable rod 78 is pivoted at 79 to the bell crank and at 80 to an operating crank 81 journaled at 82 to the frame 32 and having pivoted to its arm 83 a link 84 pivoted at 85 to a vertically slidable rod 86. The rod 86 is slidably mounted to the uprights by bearings 87 and adjustably fixed at spaced intervals on the rod 86 are a pair of stops 88 having extending therefrom arms 89 adapted to be engaged by an arm 90 formed on the casting 44.

From the foregoing description taken in connection with the accompanying drawings it will be readily apparent that when using my invention, the bottom 8 is first lowered,

the doors 6 allowed to be opened as indicated by dotted lines in Fig. 1 and the material placed therein until near the base of the doors 6 when the same are locked into position by means of the latches 15 as before described in order to form the bale, and then filled to its top with material and then the cover 7 is bolted into place. After securely bolting the cover 7 in place the stops 88 are adjusted to the desired size of bale desired and then the belt 57 is shifted to the drive pulley 35, the outcome of which is that the bottom 8 is forced upwardly until the lug 90 engages the arm 89 of the uppermost stop 88 when the belt 57 will be returned to its idler pulley 37.

After the material has been pressed the doors 6 are allowed to swing down and then the material may be readily tied by passing the usual wire therearound, the openings or spaces between the planks 19 and 30 of the top and bottom allowing the passage therearound of said wire.

Then the cover is unlocked and allowed to be swung upwardly by means of its counterbalance weight 91 secured to the outer end of the cover as at 92 by means of rope or chain 93 passing over pulley 94.

Thus it will be seen that I have devised a compact and practical invention which may be used in baling, as before said, any desired material.

I claim:

In a baling press, an elongated baling chamber, a follower movable in the chamber, idle sprocket wheels mounted at the end portions of the chamber, a drive shaft at one end portion of the chamber, a sprocket wheel on the drive shaft, idle sprocket wheels carried by a follower member, and a chain having its ends secured to the follower member and trained about the sprocket wheels at the end portions of the bearing chamber and the sprocket wheels carried by the follower member.

In testimony that I claim the foregoing I have hereunto set my hand at Brandon, in the county of Fond du Lac and State of Wisconsin.

JOHN HUBLER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."