

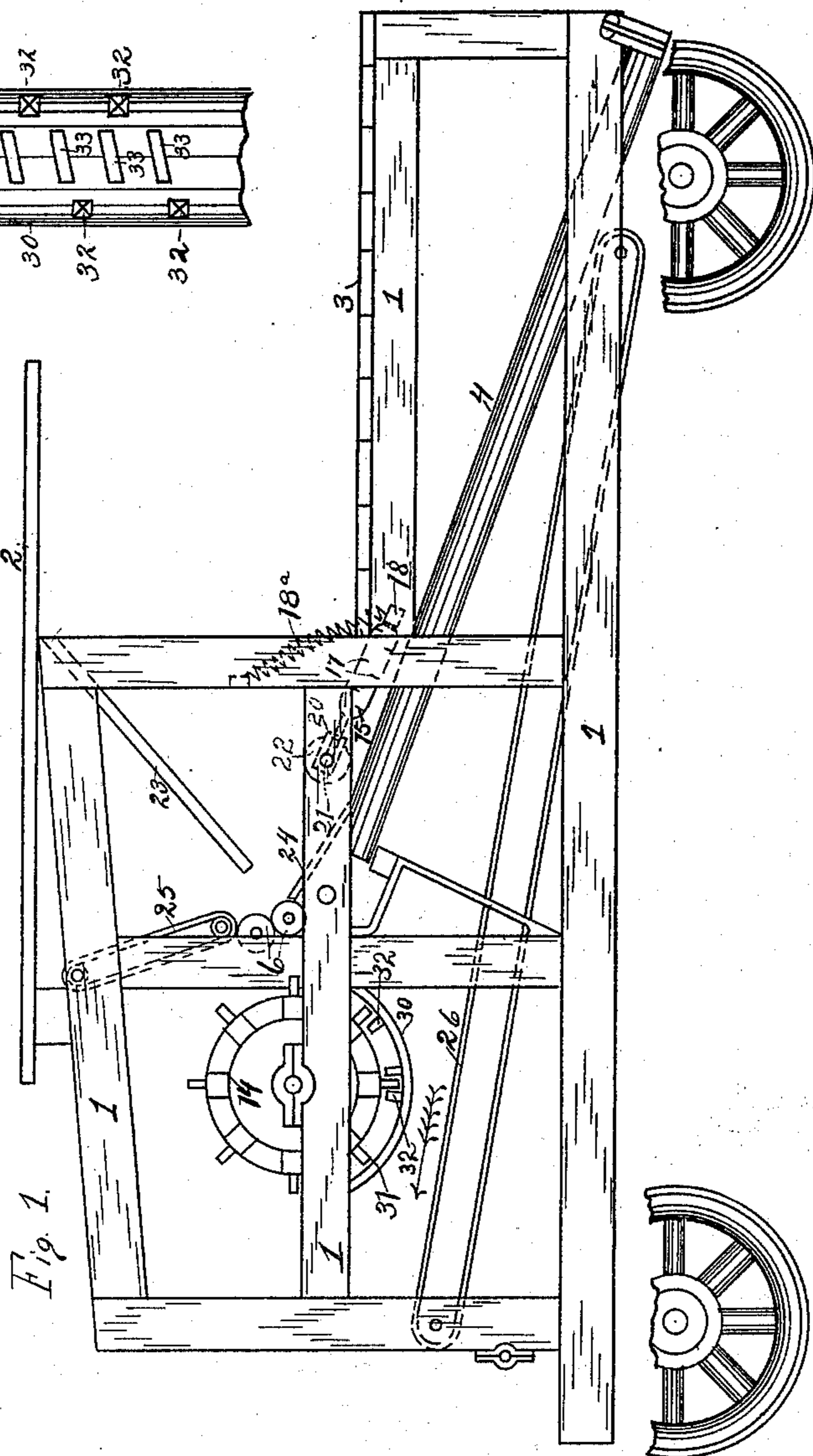
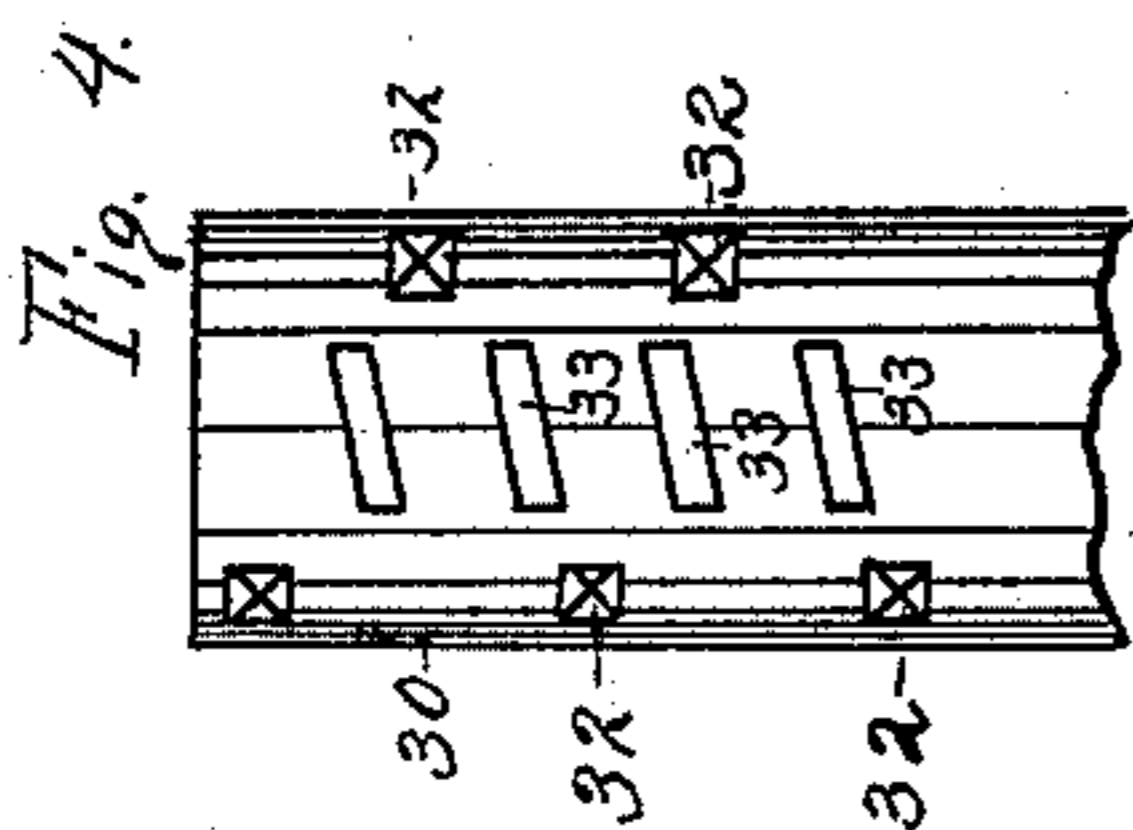
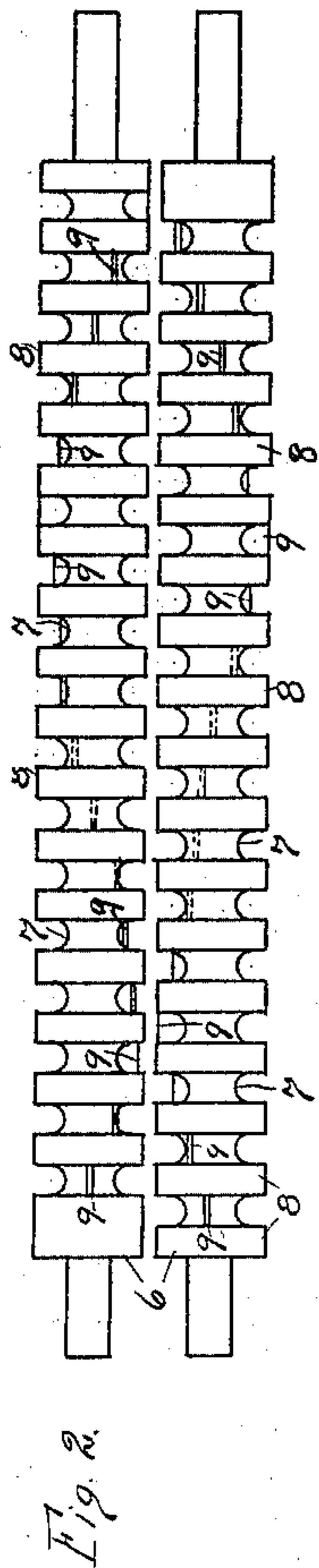
(No Model.)

2 Sheets—Sheet 1.

G. S. GUNDERSEN.  
CORN HUSKING MACHINE.

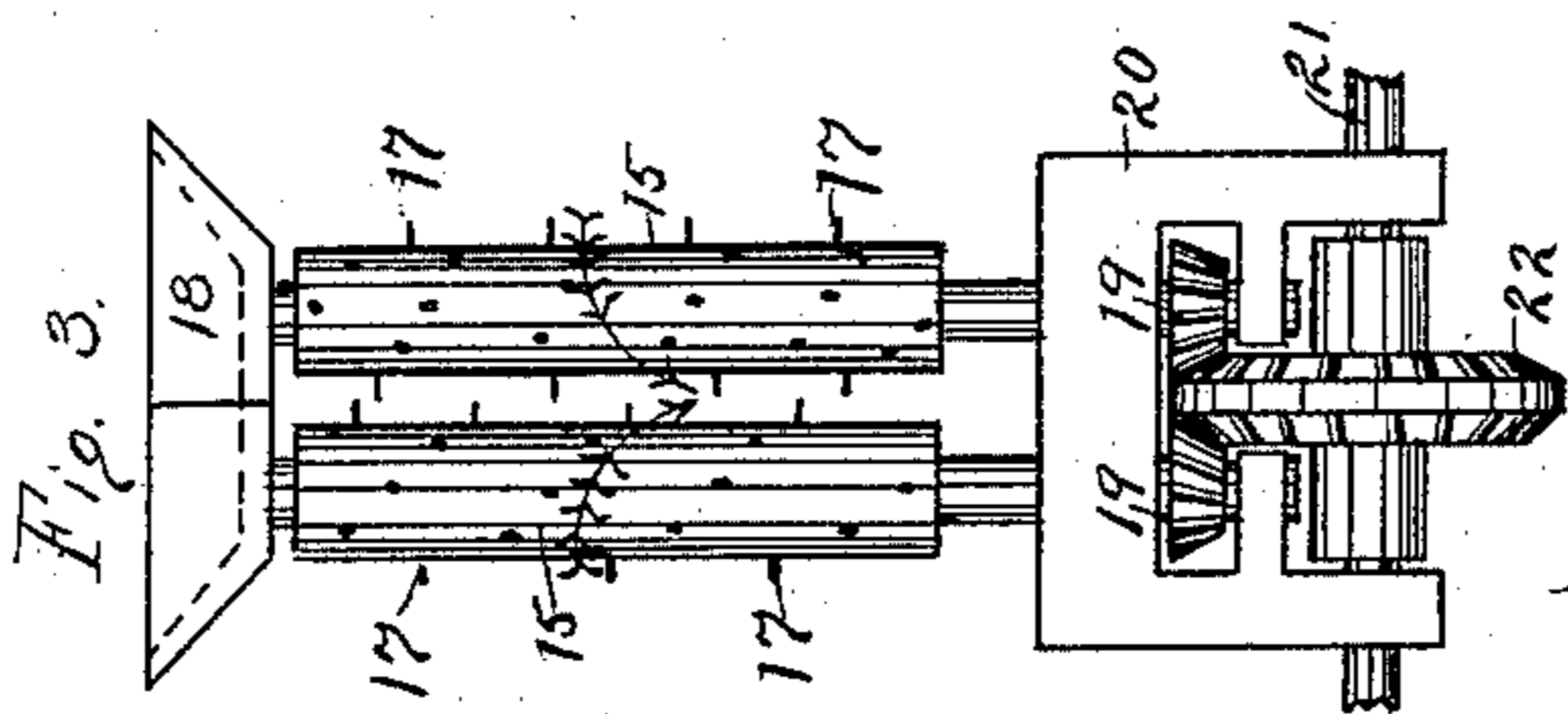
No. 603,844.

Patented May 10, 1898.



WITNESSES:

L. L. Allen,  
R. J. McCarty.



G. S. Gundersen.

INVENTOR:

By R. J. McCarty,  
his ATTORNEY:

(No Model.)

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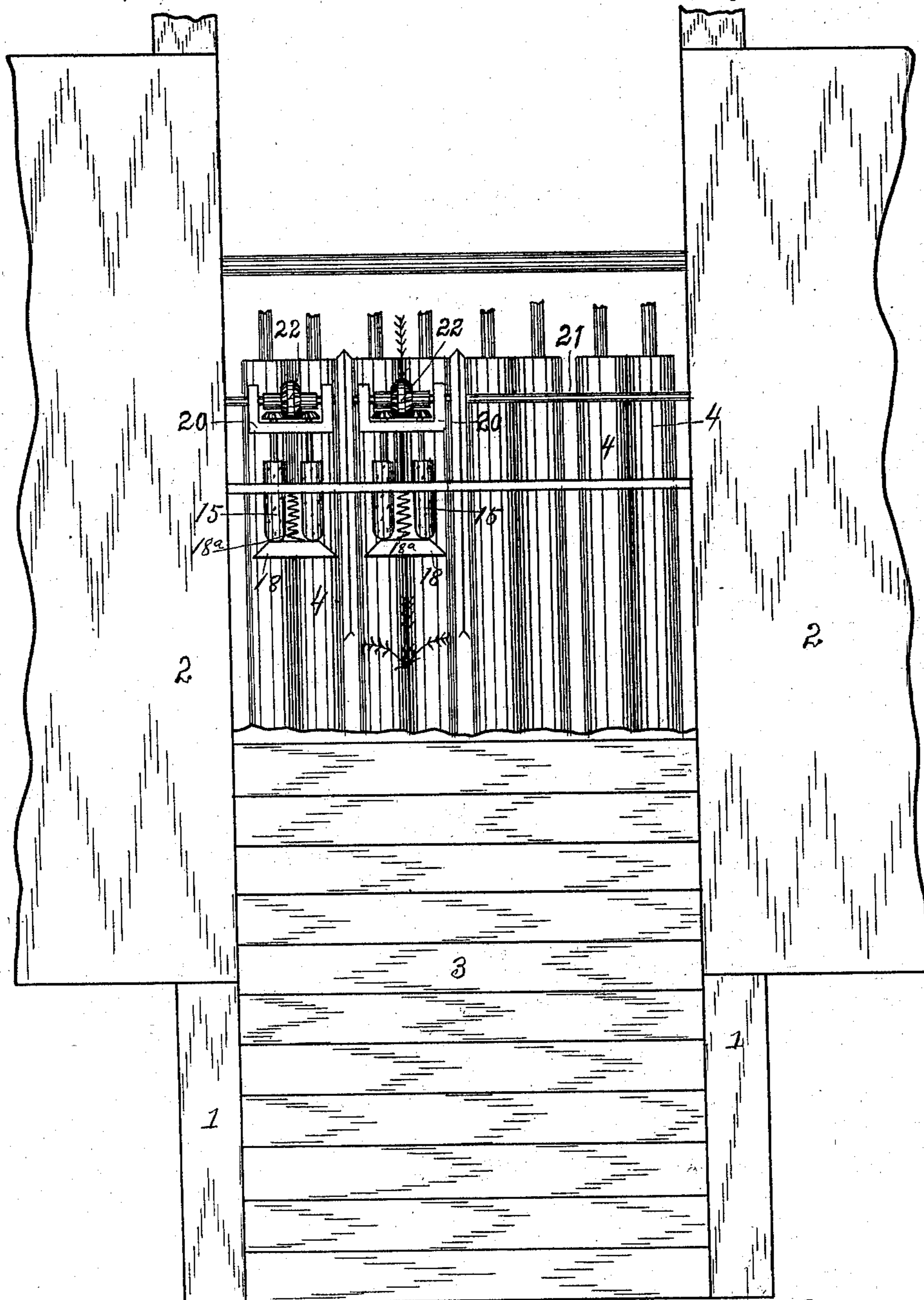


Fig 5.

WITNESSES:

L. L. Allen.  
B. M. Carty.

G. S. Gundersen.

INVENTOR:

By R. J. McCarty  
his ATTORNEY:

# UNITED STATES PATENT OFFICE.

GILBERT S. GUNDERSEN, OF DAYTON, OHIO.

## CORN-HUSKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 603,844, dated May 10, 1898.

Application filed May 4, 1896. Serial No. 590,206. (No model.)

*To all whom it may concern:*

Be it known that I, GILBERT S. GUNDERSEN, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Corn-Husking Machines; and I do 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 the figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in corn husking and shredding machines, and has for its object to provide a machine of a greatly-increased capacity over those machines with which I am familiar.

To these ends the improvements have reference to the arrangement of the snapping-rolls, whereby less pressure is brought to bear upon said rolls and their capacity for severing corn is increased, and which are so placed with relation to each other that an intervening zigzag opening and straight surface are formed between them throughout their length, which enables the doing away with stock to form said opening. The zigzag opening separates one stalk from another.

The said improvements also have reference to the construction and arrangement of husk-loosening rolls, all as will hereinafter more fully appear in the following specification, taken in connection with the accompanying drawings, of which—

Figure 1 is a side elevation of my improved corn-husker; Fig. 2, an enlarged detached view of the snapping-rolls; Fig. 3, an enlarged detached view of the husk-loosening rolls; Fig. 4, detached detail views of the concave that is mounted below the shredding-cylinders. Fig. 5 is a plan view of the machine, the snapping-rolls, butting-apron, and feed-board being removed.

Similar numerals of reference indicate corresponding parts.

1 designates the parts constituting the framework of the machine.

2 designates a feed-table, of which there is

one on each side of the machine, from which the feeder may take the stock by one or both hands.

3 is a footboard or feeder's platform, which is secured to the machine in such position that the feeder is enabled to stand in the center of the machine, and is therefore not compelled to endanger his life by bending over from one or the other side of the machine, and is also enabled to feed more stock to the machine or do twice the amount of work.

4 designates husking-rolls mounted on an incline below the feeder's stand.

6 designates snapping-rolls mounted at right angles and adjacent to the upper ends of the husking-rolls. The construction and mounting of these rolls are important features of the invention. Therefore they will be particularly described. As shown in Fig. 2, they are arranged in pairs, and each is provided with a series of annular grooves 7, with intervening flat surface-rings 8. Each of said grooves has a rib or tooth 9, that terminates flush with the surfaces of the adjacent rings, and the said teeth extend spirally around the rolls, as is shown in my Patent No. 554,061, of February 4, 1896. In the present application of this form of snapping-roll I employ two grooved rolls instead of one and one smooth roll and place them in reversed positions, so as to bring the teeth of one roll in line with the ring of the other, thereby forming between said rolls a zigzag opening throughout their length, with a corresponding intervening flat surface equal to the opening. By this construction two stalks—i. e., those lying in each two adjacent grooves—will be severed at a time, thus increasing the cutting capacity of the rolls and lessening the pressure on said rolls by distributing it equally between said rolls. My main object in thus constructing and placing the snapping-rolls is to avoid the necessity of the stock forming a groove, and yet obtain said groove and a straight surface for the corn to stop against. I have placed them so that the lines that form a groove in one roll form a straight surface in the other, and by so doing an opening is obtained in the entire length of the rolls, which provides more open space and more straight surface for

the corn. Another advantage is that each stalk of corn is kept separate while being operated on.

15 designates husk-loosening rolls mounted  
 5 above the husking-rolls. These husk-looseners run in opposite directions and loosen the husks as the ears are advanced to the husking-rollers by means of pins 17, that project from said rolls and engage with the husks.  
 10 By thus rotating these husk-loosening rolls in opposite directions the shucks are torn from the ears in opposite directions and a parting therefor is formed between the two rolls. The loosening of the shucks in this  
 15 manner does not remove the ears from their proper position between the husking-rolls, as would be the case if only one husk-loosening roll were operated above each pair of husking-rolls. 18 is a shield at one end of said  
 20 husk-loosening rolls, to which a spring 18<sup>a</sup> is attached. The upper end of this spring is secured to the frame, and the shield and rolls are flexible and may be moved upward against the tension of said spring, according to the  
 25 size of the ears of corn. The journals of these husk-loosening rolls have bevel-gears 19, that are mounted in a frame 20, that is loosely mounted on a driving-shaft 21. Upon this shaft there is a compound bevel-gear 22,  
 30 that drives said pinions. It will thus be seen that owing to the mounting of the geared ends of these rolls they will be permitted to yield as the corn passes under them, and pressure of the spring 18 will act as a weight to return  
 35 them to their proper position. 23 is a stationary feed-board attached to the frame and down which the stalks are advanced to the snapping-rolls. 25 is a butting-apron driven in any convenient way above the snapping-  
 40 rolls to guide the stalks thereto as they are passed down the feed-board 23. This butting-apron has its lower end free and rests upon the upper snapping-roll, as shown in Fig. 1. This apron has its lower end free  
 45 and rotates in close proximity to the upper snapping-roll in order to prevent any stock passing between it and said upper snapping-roll. A conveyer 26, traveling as indicated

by the arrow, receives the husks from the husking-rolls and the shredded fodder from 50 the shredding-cylinder 14 and delivers them to an elevator of common construction. (Not shown.) A concave having teeth 32 is placed below said cylinder 14 and is supported in end brackets 31.

Having fully described my invention, I claim—

1. In a corn-husker, a snapping-roll provided with a series of annular grooves and a series of rings having flat peripheries, and a 60 transverse rib in each of said grooves, in combination with a companion roller of similar construction arranged parallel with the first-named roll and in a reversed position so that the grooves on one roll will be in line with 65 the rings on the other.

2. In a corn husker and shredder, the combination of snapping-rolls having a series of annular grooves intersected by ribs that are placed spirally around said roll, and a series 70 of intervening rings with flat peripheries, a companion roll of similar construction placed in a reversed position to the first-named roll so as to bring the grooves of one roll opposite the rings of the other, whereby a zigzag opening and a corresponding straight surface are 75 provided throughout the length of said rolls, and means for enabling the feeder to feed stock to said rolls from a central part of the machine. 80

3. In a corn-husking machine, the combination with husking-rolls, of husk-loosening rolls provided with teeth, and flexibly mounted above and parallel with the husking-rolls, the said husk-loosening rolls being rotatable 85 in opposite directions so as to simultaneously remove the husks from two sides of the ear, and thereby prevent undue pressure being exerted on one side of an ear of corn to remove it from between the husking-rolls. 90

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

GILBERT S. GUNDERSEN.

Witnesses:

R. J. MCCARTY,  
 GEO. H. WOOD.