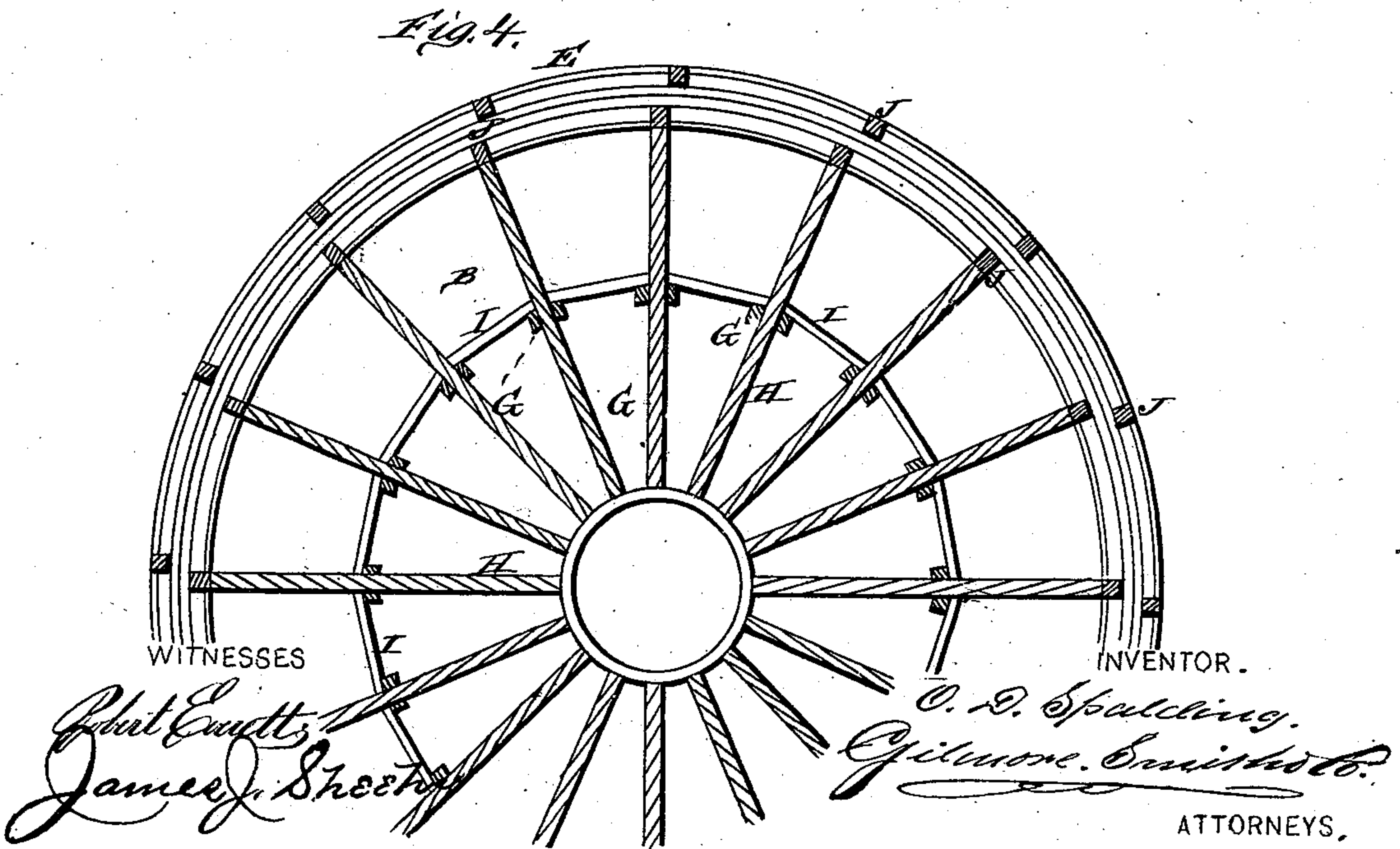
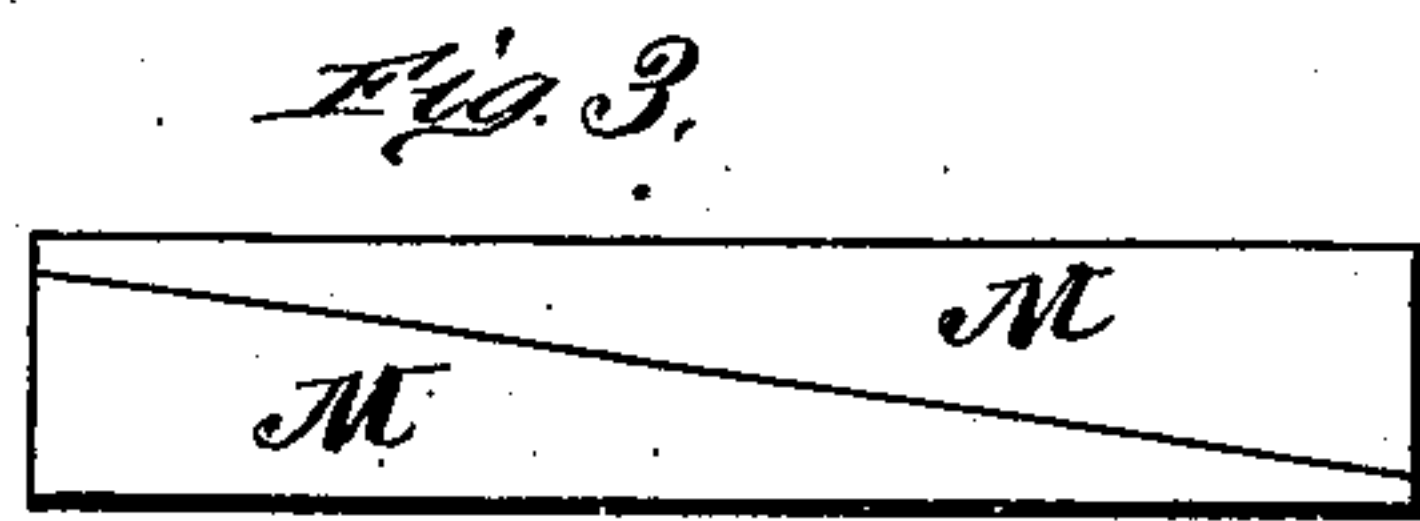
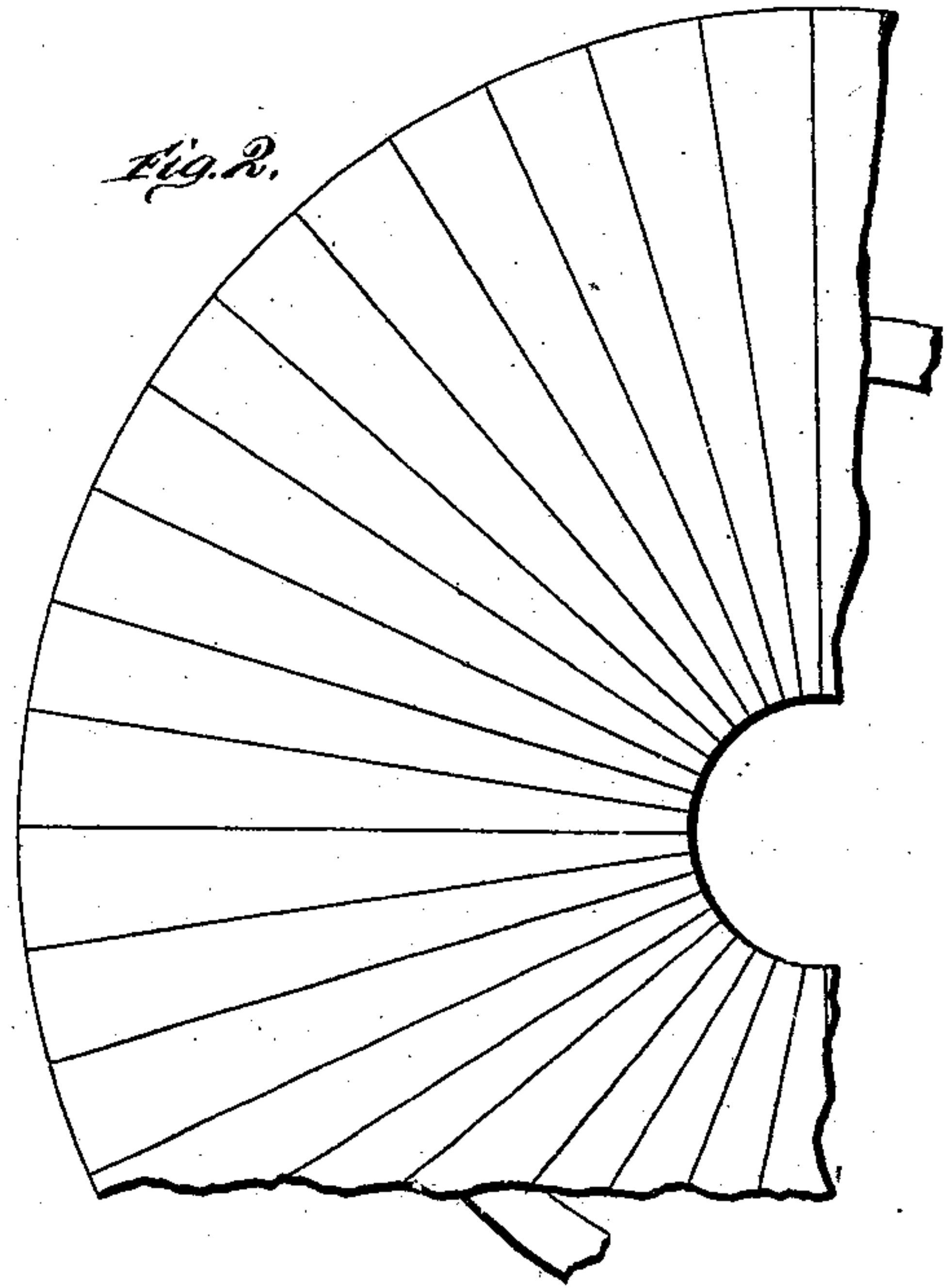
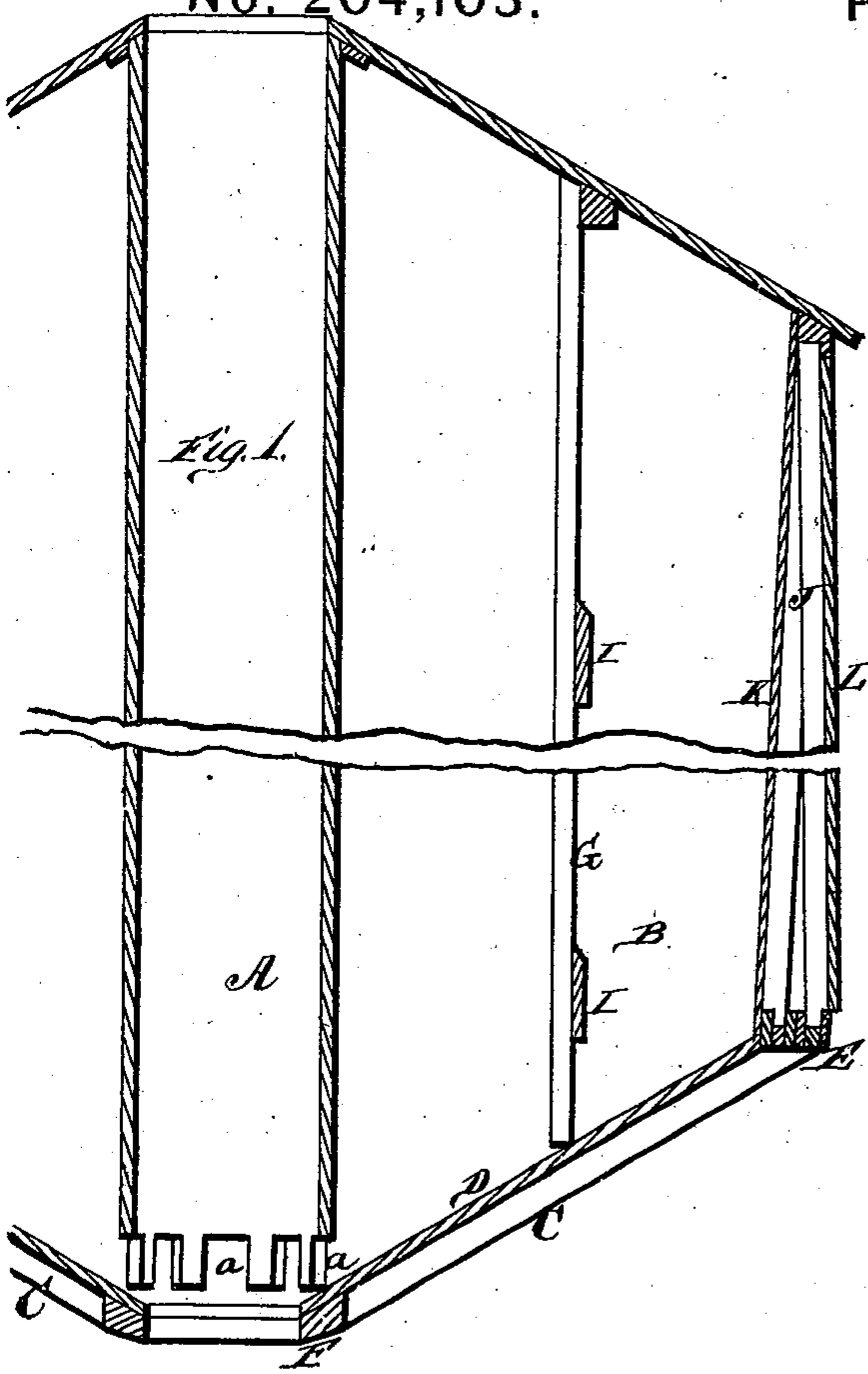


O. D. SPALDING.
Grain Elevator.

No. 204,103.

Patented May 21, 1878.



UNITED STATES PATENT OFFICE.

ORLANDO D. SPALDING, OF MITCHELL, IOWA, ASSIGNOR OF TWO-THIRDS HIS RIGHT TO ORIGEN S. WILLIAMS AND TIMOTHY F. WILLIAMS, OF SAME PLACE.

IMPROVEMENT IN GRAIN-ELEVATORS.

Specification forming part of Letters Patent No. **204,103**, dated May 21, 1878; application filed March 30, 1878.

To all whom it may concern:

Be it known that I, ORLANDO D. SPALDING, of Mitchell, in the county of Mitchell and State of Iowa, have invented a new and valuable Improvement in Grain-Elevators; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a central vertical section of my grain-elevator. Fig. 2 is a plan view of the roof. Fig. 3 is a detail view; and Fig. 4 is a horizontal sectional view.

The nature of my invention consists in certain improvements in grain-elevators, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

My grain-elevator is built in circular form, with a central upright shaft, A, in which the elevator is placed, and a series of bins, B B, arranged around the same, all the bins having outlets at *a a* into the pit at the bottom of the shaft. The grain-elevator is built upon a suitable foundation, upon which are secured the floor-sills C C, arranged radially in inclined position. On top of these sills the floor D is secured, suitable joists being added to give the required strength to said floor.

E represents the outside sill, supported upon and secured to the outer ends of the inclined radial sills C C. This outside sill E is built of one-inch boards, bent and lapped, and nailed together in the form of a hoop, and provided with suitable slots in the upper side to receive the studding.

F is the outside hoop or sill around the inner lower ends of the inclined sills C C for the center tube or shaft A to stand on.

To form the bins B B, rows of studding G are secured in vertical position on the floor D, and partitions H fastened to them, as shown. Braces I I are then arranged horizontally and nailed to the studding between the partitions across the bins, forming continuous bracing around the building, which gives sufficient strength. A suitable passage is, of course, to be made through from side to side of the building in the lower portion for a

working-floor. The walls of the building are made of studding J, set about sixteen inches apart in slots in the outside hoop or sill E. On the inside of this studding are fastened half-inch boards K K, two thick, to form the inside wall, while the outside is sided with common lap-siding L, which gives sufficient strength, and equal to the strain that will be required for a fifty-thousand-bushel elevator. The roof is made of boards split through diagonally, each board forming two pieces, M M, which are tapering, as shown. The wide ends of these are turned down and nailed to the plate N on the top of the vertical studding J. These boards are to be jointed and laid close together, forming a cone-shaped roof, which makes it solid and strong. The circular form of the elevator has a great advantage over the ordinary square form in strength as well as in capacity. In the circular form the strain of the material lengthwise is obtained instead of crosswise, which gives a great deal more strength with considerable less material in building, so that it can be built for almost one-half the cost of the square one of the same capacity. All the bins run to the center, so that the grain can be drawn from any or all of the bins at the same time and in one spout to the car.

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

1. A grain-elevator made in circular form, with a central tubular shaft and a series of bins arranged around the same, and all running to the center, as herein set forth.

2. In a circular grain-elevator, the combination of the central tubular shaft A, inclined sills C C, floor D, outside slotted hoop E, inside sill F, and wall-studdings J, substantially as set forth.

3. In a circular grain-elevator, the combination of the central tubular shaft A, wall-studdings J, floor D, studding G, partitions H, and braces I, all constructed substantially as and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ORLANDO DEMIC SPALDING.

Witnesses:

J. A. WENTWORTH,
P. J. McNAMARA.