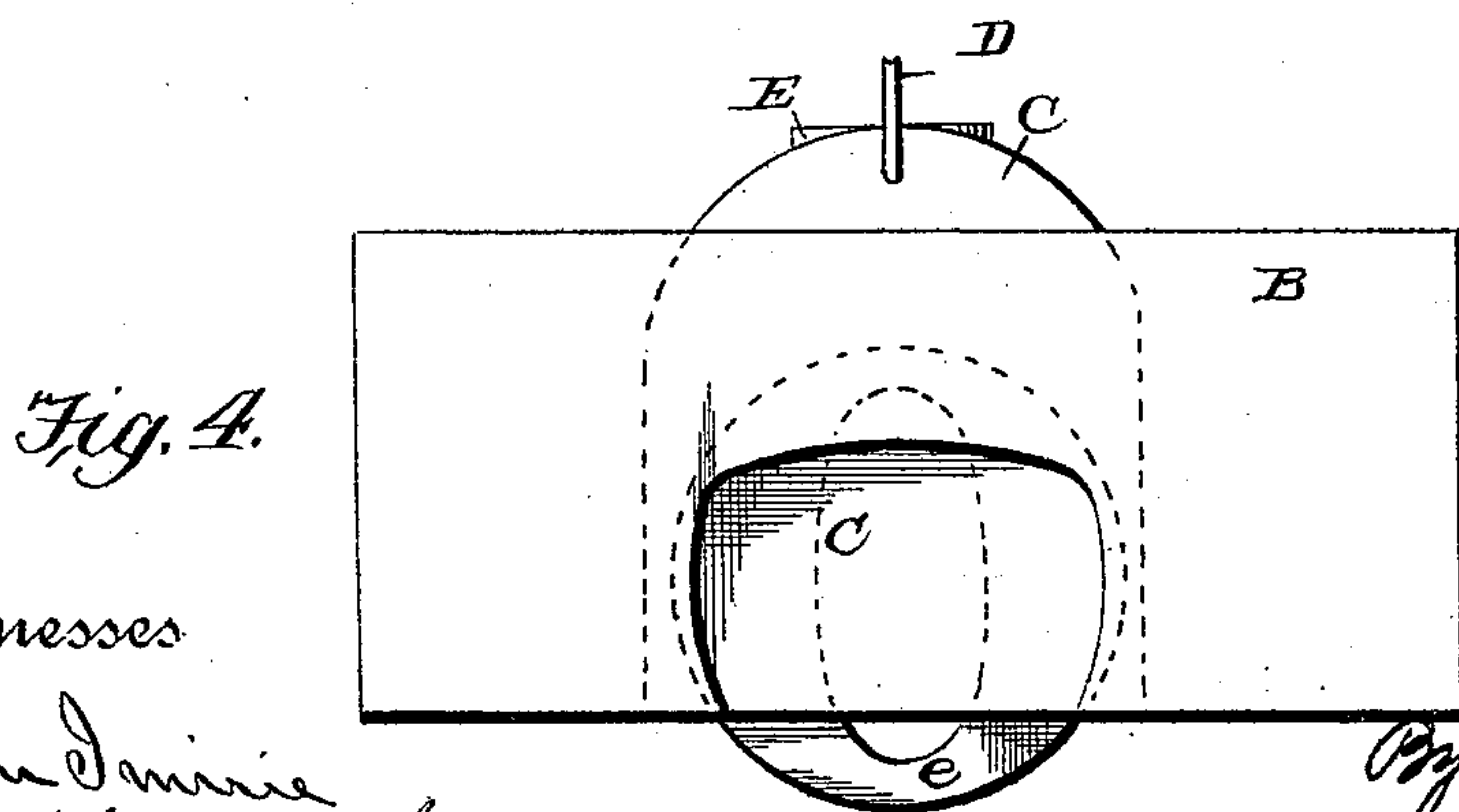
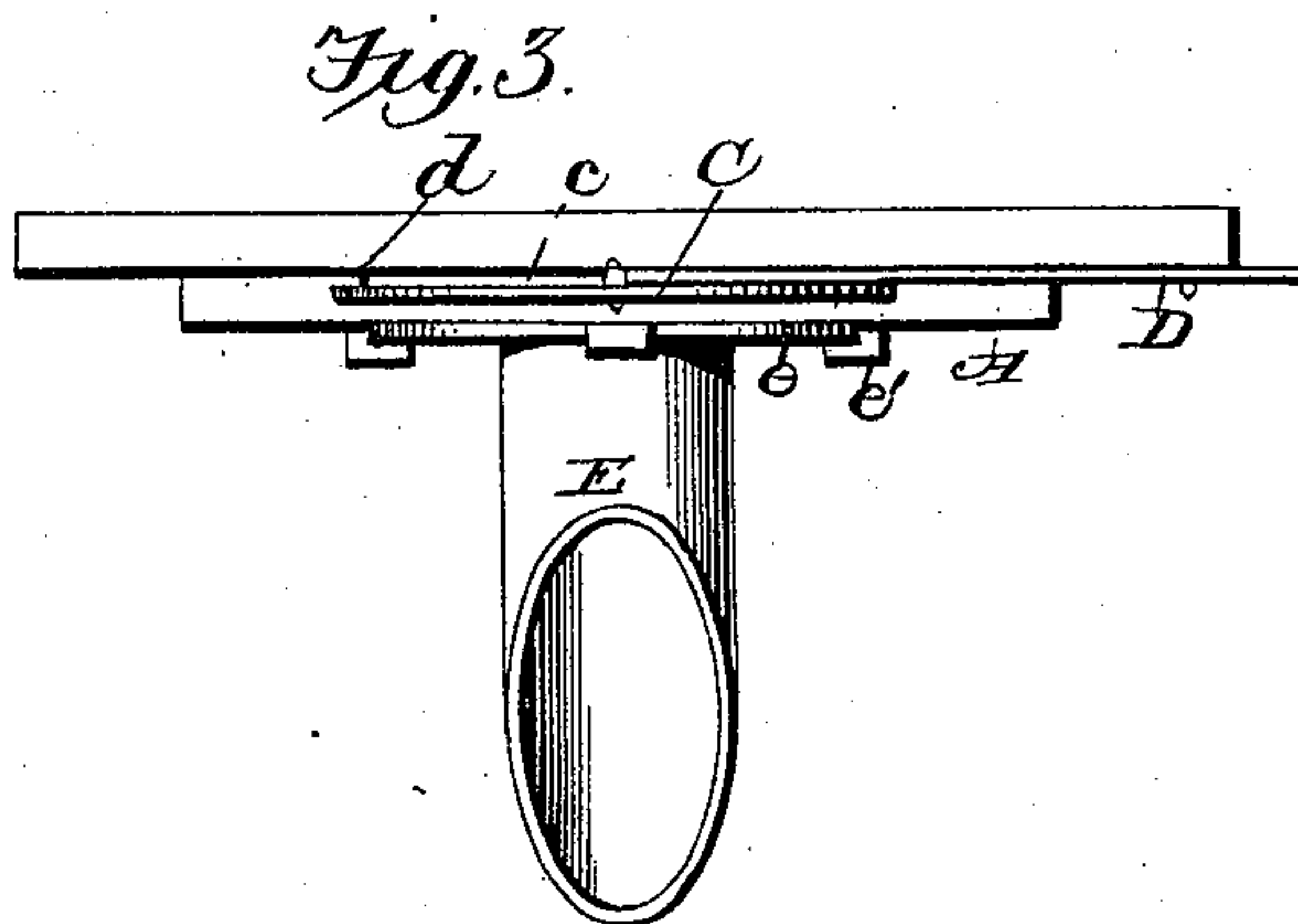
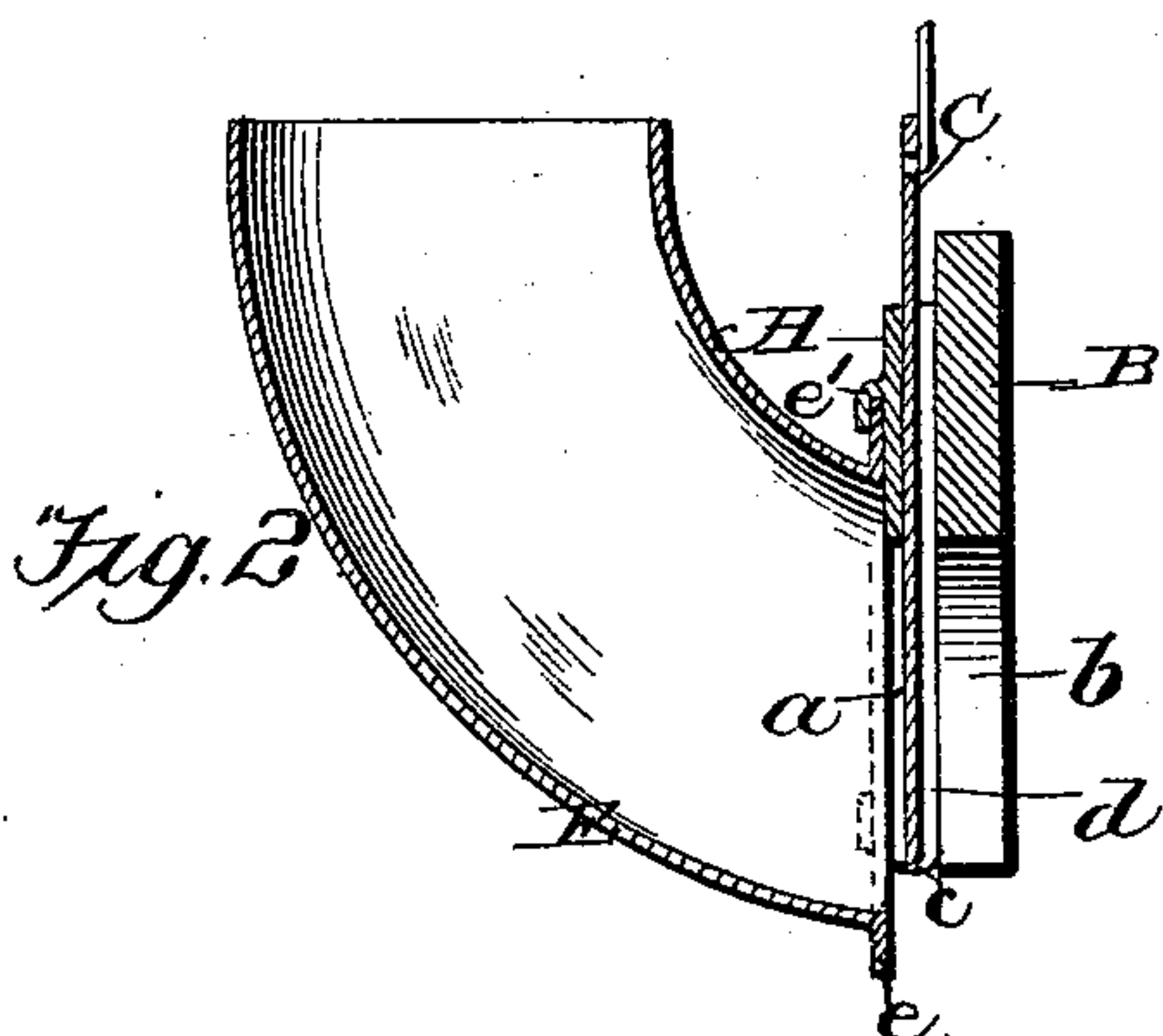
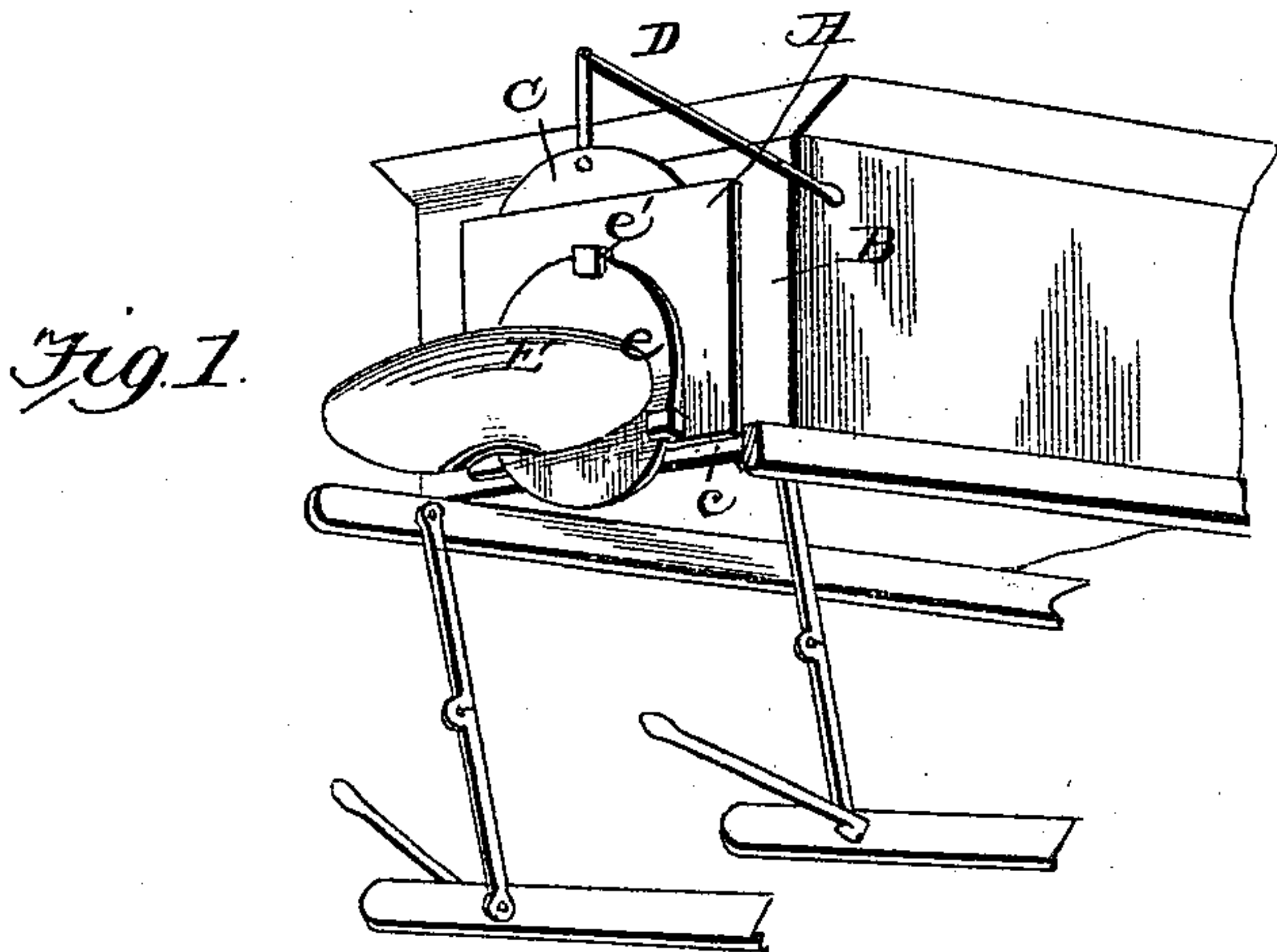


(No Model.)

P. SEIBERT.  
COAL WAGON CHUTE.

No. 518,121.

Patented Apr. 10, 1894.



Witnesses

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# UNITED STATES PATENT OFFICE.

PHILIP SEIBERT, OF PHILADELPHIA, PENNSYLVANIA.

## COAL-WAGON CHUTE.

SPECIFICATION forming part of Letters Patent No. 518,121, dated April 10, 1894.

Application filed August 2, 1893. Serial No. 482,192. (No model.)

*To all whom it may concern:*

Be it known that I, PHILIP SEIBERT, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Coal-Wagon Chutes; 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 the letters of reference marked thereon, which form a part of this specification.

My invention relates to an improved chute, more especially designed for coal wagons or vehicles of that class wherein the body of the wagon or vehicle is initially elevated or angularly disposed to discharge the load and is intended as an adjunctive or auxiliary part to the chute now in general use for delivering the coal into a vault under the sidewalk, the aforesaid auxiliary chute conducting the coal directly from the wagon to the sidewalk chute, and the invention has for its object to impart to the discharging coal an impetus and to expedite the discharge of the load or contents of the wagon or vehicle and the ready manipulation of the parts, and to these ends the invention consists of the novel combination and arrangement of parts substantially as hereinafter more fully disclosed and pointed out in the claims.

In the accompanying drawings: Figure 1 is a perspective view, showing my invention as applied for use. Fig. 2 is a sectional view thereof. Fig. 3 is a plan view; and Fig. 4 is a rear view thereof.

In the embodiment of my invention, I first produce a casting or plate, A, which is fastened upon the tail or end gate, B, of the wagon or vehicle, this gate having, as usual in this class of coal wagons, an opening, b, through it for the outlet or discharge of the coal or contents of the wagon.

The plate or casting, A, has in it an opening, a, coincident with the opening, b, in the tail or end gate, B; and in a space or recess, c, between said plate or casting and the tail gate is fitted to slide a wicket, C, to provide for opening and closing said discharge opening or outlet, the side walls of said recess or

space being formed by flanges, d, which also extend inward at their lower ends to form stops to limit the downward movement of said wicket or slide.

For the convenient manipulation or raising and lowering of the wicket or slide, C, a lever, D, is used, having one end pivoted to the tail or end gate, B, and connected intermediately of its ends, in any suitable way, to the upper end of said wicket or slide.

Upon the opposite or outer side of the plate, A, is arranged in alignment with its opening, a, a tube or chute, E, having at its inner end a circular or disk-like flange, e, working under flanges, e', projecting from said plate, to permit of axially turning said chute, to provide for the discharge of the coal or contents of the wagon according to the side of the street the wagon is stopped on to unload, as will be more fully understood hereinafter.

The chute or tube, E, is in a single casting or piece and, preferably, approximately elliptic in cross section, and is curved in longitudinal section, preferably, in the form of a cycloid within which can be produced a right angle whose limbs or members pass through the ends of said tube or chute, respectively, to enable the latter to discharge or deliver the load of the wagon laterally or at right angles to the length of its body. By reason of this particular curvature of the tube or chute, the coal, in leaving the wagon, the body of which is supposed to have been previously elevated or angularly adjusted and the moving coal conducted by the internal funnel-like arranged guides in the wagon body toward the discharge opening in the tail or end gate, will receive an impetus as it enters said chute or tube, that would not attend the use of simply an inclined tube or chute, and thus prevent the liability of the wedging of the coal in the chute or tube and expedite the unloading of the coal.

In operation, the wagon, with its load of coal, being drawn up or along-side of the sidewalk, the chute in general use upon this class of wagons is slid or moved out from under the wagon and swung around upon its support, with its lower end placed or adjusted at the opening of the coal vault in the sidewalk, the auxiliary chute is axially adjusted or turned so as to present its discharging or de-



livering end toward the sidewalk and cause it to rest upon the aforesaid chute, and the wicket or slide is lifted by suitably manipulating its adjusting lever. The coal which, 5 as above intimated, has been conducted, by the funnel-like arranged guides in the back end portion of the wagon, to the discharge opening in the tail or end gate, will now be discharged through said opening into said 10 auxiliary chute and from thence fall upon the primary chute delivering the coal to the coal vault.

After use, the auxiliary chute or tube is turned or swung into such position as to cause 15 its discharging end to stand upward, which is thus held by any improvised means, the primary or main chute, of course, being returned to its former position upon the wagon.

I claim—

20 1. The combination with the tail or end gate of a wagon, of a chute axially adjustable thereon and adapted to discharge the contents of the wagon laterally, substantially as set forth.

2. A wagon chute, curved in the form of a

cycloid, and discharging at right angles to the 25 longitudinal plane of the wagon body, substantially as set forth.

3. A wagon chute, having an approximately elliptic cross section and curved longitudinally in the form of a cycloid, substantially 30 as set forth.

4. In a wagon chute, the combination, with the end or tail gate having a discharging opening therein, a plate or casting having a coincident opening therein and fastened to 35 said tail gate, a wicket or slide and its manipulating lever arranged to slide between said tail gate and plate, and a curved tube or chute proper arranged in alignment with said 40 opening and axially adjustable upon said plate, substantially as specified.

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

PHILIP SEIBERT.

Witnesses:

JNO. MALONE,

GEORGE T. JACKSON.