

(No Model.)

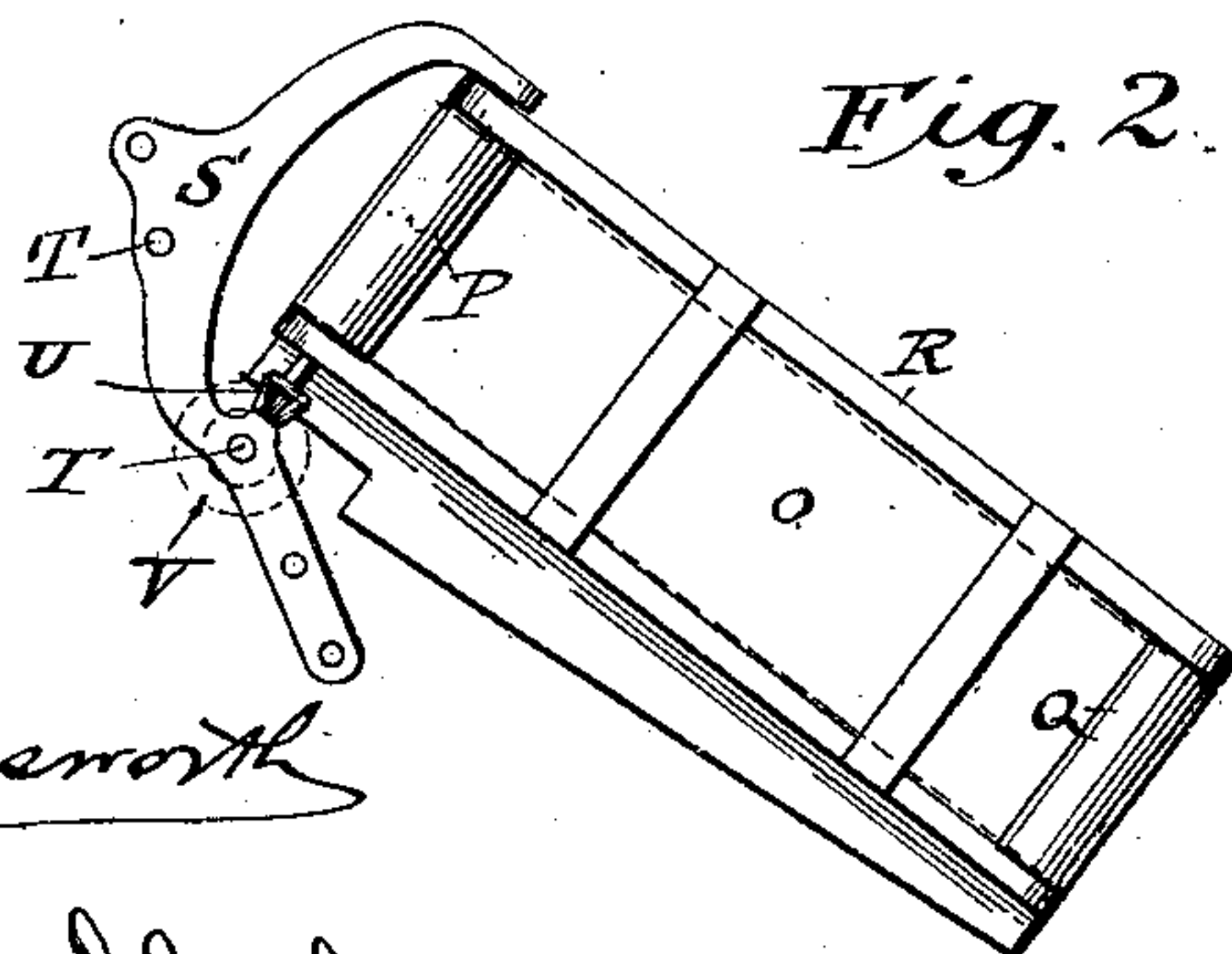
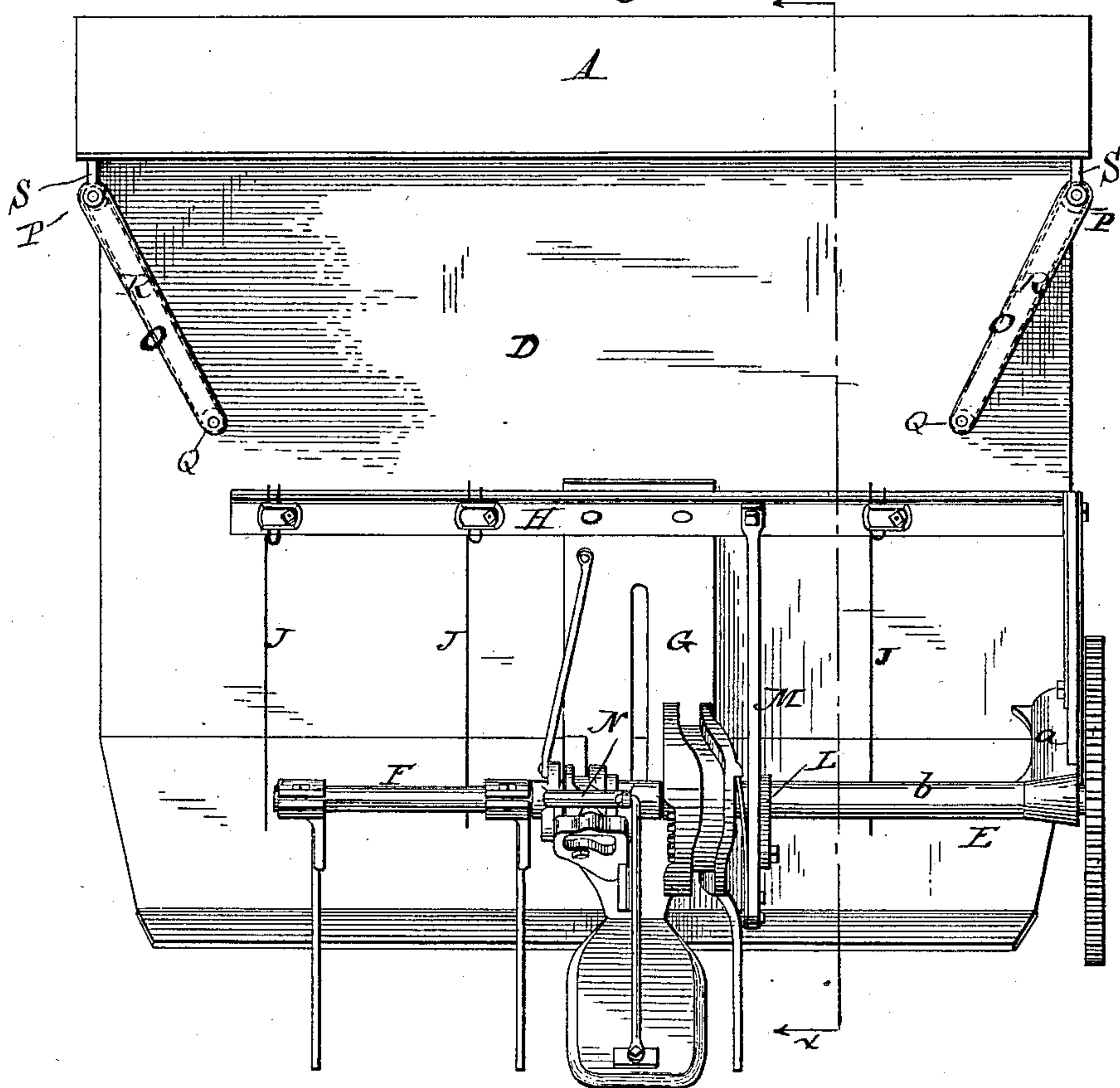
2 Sheets—Sheet 1.

G. ESTERLY.

GRAIN BINDING MACHINE.

No. 278,524.

Fig. 1. Patented May 29, 1883.



Attest.

Sidney P Hollingsworth

William G. Shipley

Inventor.

George Esterly
By his attorney,
Philip T. Dodge.

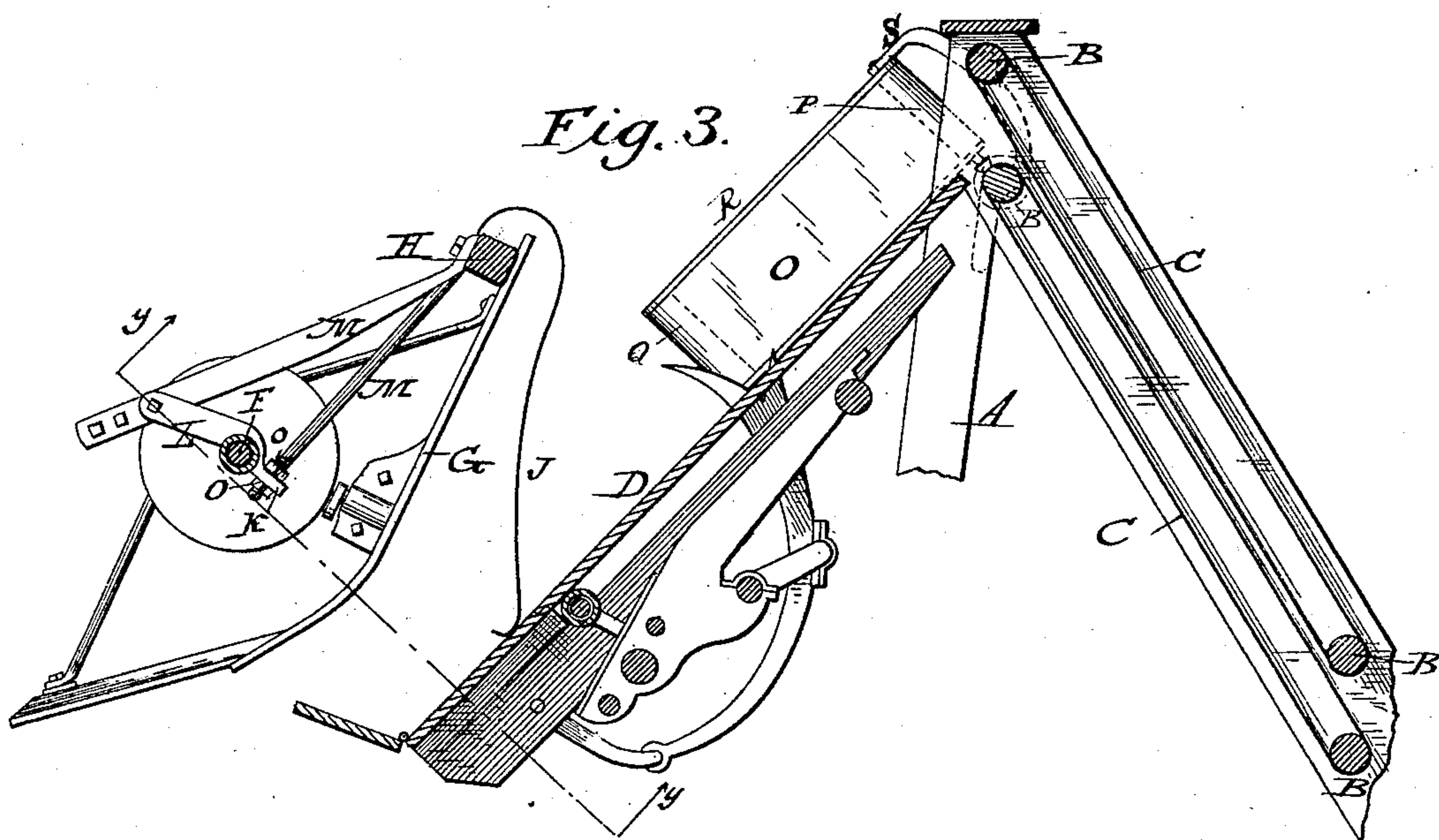
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UNITED STATES PATENT OFFICE.

GEORGE ESTERLY, OF WHITEWATER, WISCONSIN.

GRAIN-BINDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 278,524, dated May 29, 1883.

Application filed June 26, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ESTERLY, of Whitewater, in the county of Walworth and State of Wisconsin, have invented certain new and useful Improvements in Grain-Binding Machines, of which the following is a specification.

The present invention has reference to that class of grain-binding machines wherein endless belts or aprons carried by upright rolls are arranged to travel obliquely across the end of the binding-table or grain-board, for the purpose of shifting the grain endwise during its passage toward or into the binding mechanism, and thereby securing the central application of the band.

The improvement consists in a bracket designed to sustain both journals of the roll by which the upper end of the adjuster-belt is carried, and also the journals of one end of one or both of the rolls carrying the upper end of the conveyer-aprons, whereby said parts and the connecting-gears are maintained in the proper relative positions.

Referring to the accompanying drawings, Figure 1 represents a top plan view of a machine of the well-known Esterly-Appleby type having my improvement embodied therein. Fig. 2 is a side elevation of one of my improved brackets or standards and the parts connected therewith. Fig. 3 is a vertical section on the line *xx* of Fig. 1.

Referring to the accompanying drawings, A represents the upper part of what is commonly known in the art as an "elevator-frame," or "A-frame," of the ordinary harvester, containing the transverse rolls B, which sustain and drive the two canvas aprons, C, by means of which the grain is elevated from the harvester-platform and delivered to the binding-table or grain-board D, located upon the outer side of the harvester-frame, the above parts being of the ordinary construction and arrangement, and constituting no part of the present invention.

In practical operations in the field it is found that the grain varies greatly in length, in consequence of which it is necessary to shift the same endwise as it descends to the binding mechanism, in order that the central application of the band thereto in all cases may be secured. For this purpose I employ,

as in other machines well known in the art, one or more endless aprons or belts mounted upon rolls perpendicular to the surface of the grain-table and arranged to present the upright surface of the apron across the end of the table in a path oblique to the path of the grain. In the present machine I have represented two of these belts, O, arranged at opposite ends of the grain-table to act upon the heads and butts of the grain, respectively.

As shown in Figs. 1, 2, and 3, each belt is carried at its two ends by means of rolls P Q, which rolls have their journals mounted in a swinging frame, R. This frame revolves about the journals of the upper roll, P, as an axis, in order that the lower end of the apron may be adjusted laterally and the inclination or obliquity of its face to the path of the grain be varied as the length of the grain may require. The journal of the upper roll, P, is provided at the lower end with a bevel pinion, U, which receives motion from a corresponding gear, V, applied to the journal T of that roll which carries the upper end of the lower conveyer-apron, as represented in Figs. 2 and 3.

My invention has special reference to the manner of supporting the upper roll, P, and maintaining the same in the proper relation to the journal T. To this end I provide a rigid standard or bracket, S, such as clearly represented in Figs. 2 and 3, the same consisting of a base portion adapted to be bolted to the side of the elevator or harvester frame, and of an upright standard or portion rising therefrom above the surface of the grain-table. The upper end of the standard is provided with a bearing to receive the upper journal of the roll P, while the base portion is provided with bearings to receive the lower journal of the roll P, and also the journal T of the lower elevator-roll. The base portion is also provided, as shown, with openings to receive fastening-bolts.

It will be observed that the standard thus constructed will sustain the roll P in its proper position, and that it will at the same time maintain the end of said roll and its pinion in the proper relation to the gear of the elevator-roll by which the adjuster-roll is driven.

In practice it is found that by the employment of this construction the certain and positive action of the parts is secured, and that the

difficulties hitherto experienced on account of the gears U V being thrown out of position are entirely avoided. The base of the bracket may be made to serve as a bearing for the
5 journals of one or both of the upper elevator-rolls, as required.

Having thus described my invention, what I claim is—

1. The bracket or standard S, adapted to be
10 bolted to the frame, and provided with bearings for the adjuster-roll, and with bearings

for the journals of one end of the elevator-rolls.

2. The stationary bracket S, constructed, as described, to afford a bearing for one end 15 of one or both of the elevator-rolls, and also a bearing for the lower journal of the upright adjuster-roll.

GEORGE ESTERLY.

Witnesses:

JAS. H. MARR,

JAS. D. DUNFORD.