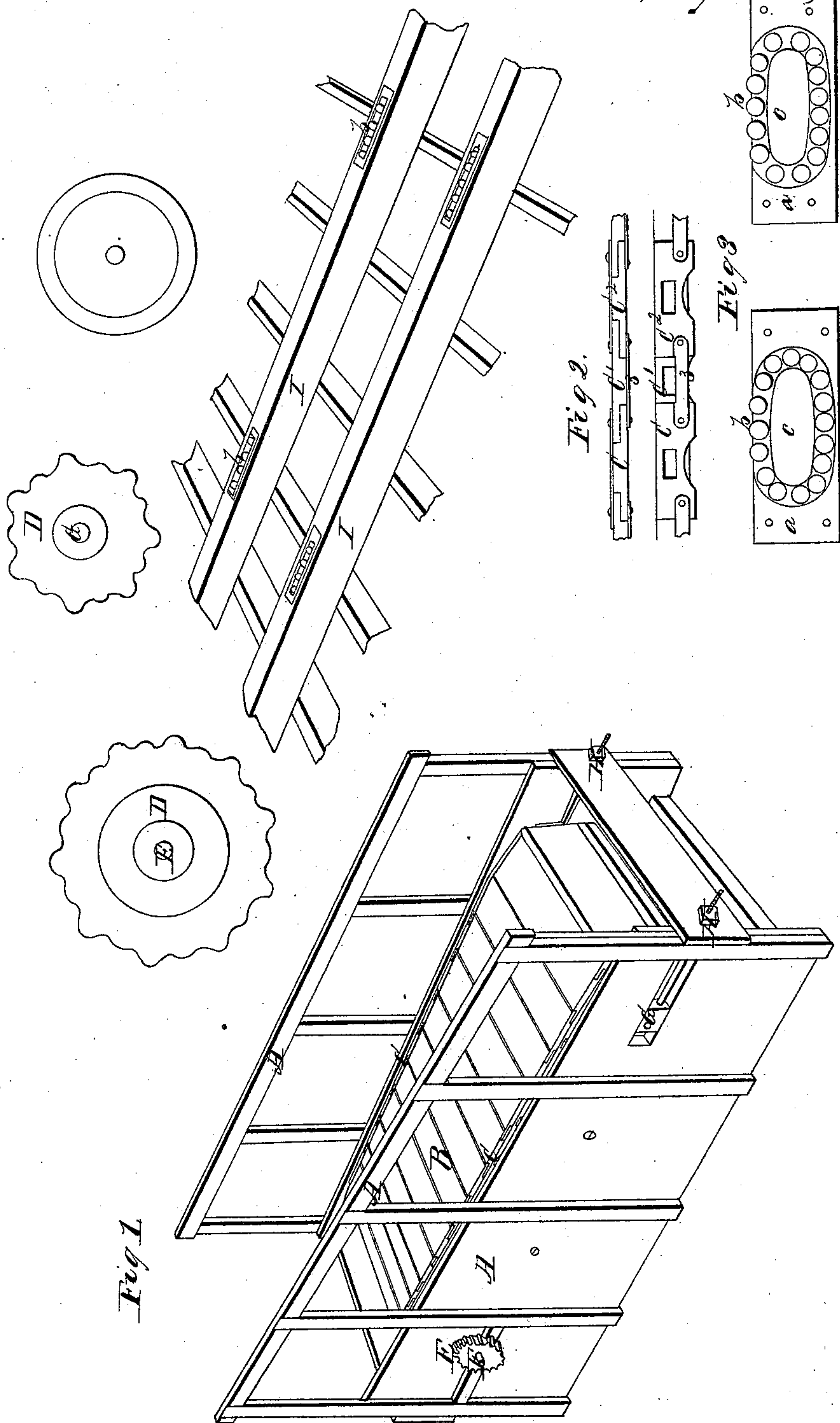


H. G. Hall, Horse Power.

N^o 417.

Patented Sep. 28, 1837.



UNITED STATES PATENT OFFICE.

HENRY G. HALL, OF PUTNAM, OHIO.

ENDLESS-CHAIN HORSE-POWER FOR DRIVING MACHINERY.

Specification of Letters Patent No. 417, dated September 28, 1837.

To all whom it may concern:

Be it known that I, HENRY G. HALL, of Putnam, in the county of Muskingum and State of Ohio, have invented a new and useful Improvement in Machines for Propelling Machinery, called "Hall's Improved Horse-Power," which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

10 A, Fig. 1, represents the frame; B, flexible platform on which the horse walks; C C, endless chains—the links of which are scarfed at each end—having an additional link placed alternately on the inside and outside, through which the connecting pins pass as shown in Fig. 2 in which 1 and 2 are the scarfed links and 3 the additional link. This additional link renders the chain much stronger and causes it to work more easily

15 than those in use. The oblong apertures in 1 and 2 are to receive the ends of the slats of the flexible platform. D D polygonal wheels over which the chains pass and by which they are turned, placed on the main shaft, on which there is a cog or band wheel for conveying the power to the machinery to be propelled. E the main shaft just mentioned. F the cog wheel. G another shaft placed at the rear end of the frame on which

25 there are two other polygonal wheels of lesser diameter than those at the forward end before described—said shaft G turning in horizontal sliding boxes regulated by screws and nuts for tightening the endless

flexible platforms. H H the regulating screws and nuts. I I two parallel timbers supported by cross pieces under the platform, in which are placed four cast iron boxes—each containing a set of metallic balls for supporting the platform and over which it moves. Each box is cast in two pieces with an oval channel in each, so that when they are brought together an oval groove or track is formed a little larger than the diameter of the balls, and in which they travel round—the core in the center being of such strength as to sustain the balls, platform, and horses—the upper part of the box being left open for the balls to protrude through so as to carry the platform clear of the timbers—and the upper side of the core being so curved that only three or four balls shall touch the platform at the same time, as seen at Fig: 3 *a* are the boxes, *b* the balls, *c* the core.

The under sides of the slats composing the endless flexible platform in contact with the balls are covered with plates of iron.

The invention claimed by me the said HENRY G. HALL, and which I desire to secure by Letters Patent consists in—

The additional link No. 3 for strengthening the chain. The principle of a self supporting chain for horse powers is disclaimed.

HENRY G. HALL.

Witnesses:

WM. P. ELLIOT,
WM. BISHOP.