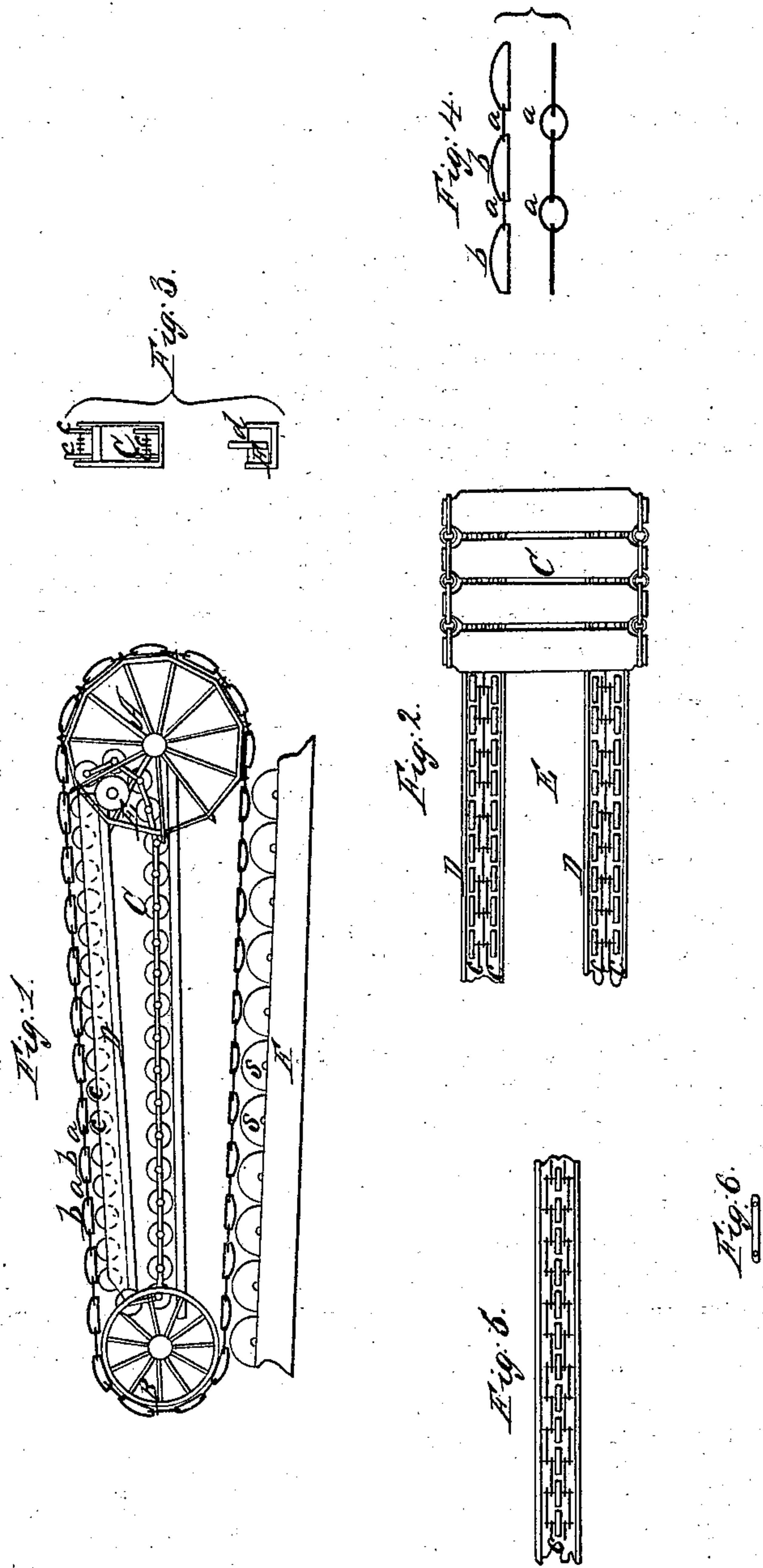


J. G. Hall,
Horse Power.

N^o 395.

Patented Sep. 21, 1837.



UNITED STATES PATENT OFFICE.

JACOB G. HALL, OF ZANESVILLE, OHIO.

IMPROVEMENT IN THE ENDLESS-CHAIN HORSE-POWER FOR DRIVING MACHINERY.

Specification forming part of Letters Patent No. 395, dated September 21, 1837.

To all whom it may concern:

Be it known that I, JACOB G. HALL, of Putnam, in the county of Muskingum and State of Ohio, have invented a new and useful Improvement in the Application of Animal Power to Propelling Machinery, called "Hall's Improved Revolving Platform Horse-Power;" and I do hereby declare that the following is a true and exact description of said improvement as invented by me, reference being had to the accompanying drawings of the same, making part of this specification.

The large wheel, Figure I, letter A, is eighteen inches in diameter, with eleven or more sides having cogs at the angles, as represented in the drawings, upon which the small links in the chain work, as also represented in the drawings. The wheel, Fig. I, letter B, is ten inches in diameter and made with a flange. The smaller links in the chain, marked *a a*, Figs. I and IV, are oval and large enough to admit the cogs at the angles of the wheel A, Fig. I. The long links, marked *b b*, Figs. I and IV, are made oval on one side and straight on the other. The long links are made of flat wrought-iron and the short or oval ones of round iron. The long links in their motion rest upon the sides of the wheel A. The floor, Fig. II, letter C, is made of plank, the ends of which are fitted into the long links of the chain. The weight of the floor with the horses is sustained by four rows of cast-iron truck-rollers, two inches in diameter and five-eighths of an inch thick, running in pairs of two each, each row of pairs, while sustaining the floor, in a cast-iron box. As the rollers leave the box, they return through wooden boxes over a cast-iron cylinder or roller, as represented in Fig. I. A side view of one row of the truck-rollers is seen in Fig. I, letter C. A cross-section, Fig. III, exhibits one pair of the rollers *c c*, the higher pair in the cast-iron bed and the lower pair, as they appear on

their return through the wooden box C. Both pairs of rollers are represented by *c c c c*, Fig. II.

The cylinder or roller is represented by E, Fig. I. The rollers *c c* run on wrought-iron axles half an inch in diameter. These axles each pass through three cast-iron links which are loose on the axles between the rollers, and which when connected form an endless chain of truck-rollers, as represented in Fig. I. The floor in its return is supported by stationary cast-iron rollers one and a half inches thick and four inches in diameter, placed in a wooden box, as represented in Fig. I, letters F *d d*.

The wooden box C is fastened to the iron box D, Fig. III, by screws.

The endless chains of truck-rollers may be made with one string of rollers instead of two strings, as represented by Fig. V.

Fig. VI represents one of the cast-iron links.

I do not claim to be the inventor of an endless-chain horse-power or of an endless chain of truck-rollers under it; but

What I do claim as my improvement is—

1. The manner above described of constructing the chain for connecting the endless floor by employing oval and semi-oval links alternately, the latter embracing the slats of the floor.

2. The manner of constructing the endless chain of rollers by passing the axles or round rods on which they revolve through the rollers and links without riveting or other fastening, and retaining them in their places by means of boxes, the sides of which prevent their falling out, as herein set forth.

September 5, 1837.

JACOB G. HALL.

Witnesses:

THOMAS WOOD,
R. HASLETT, Jr.