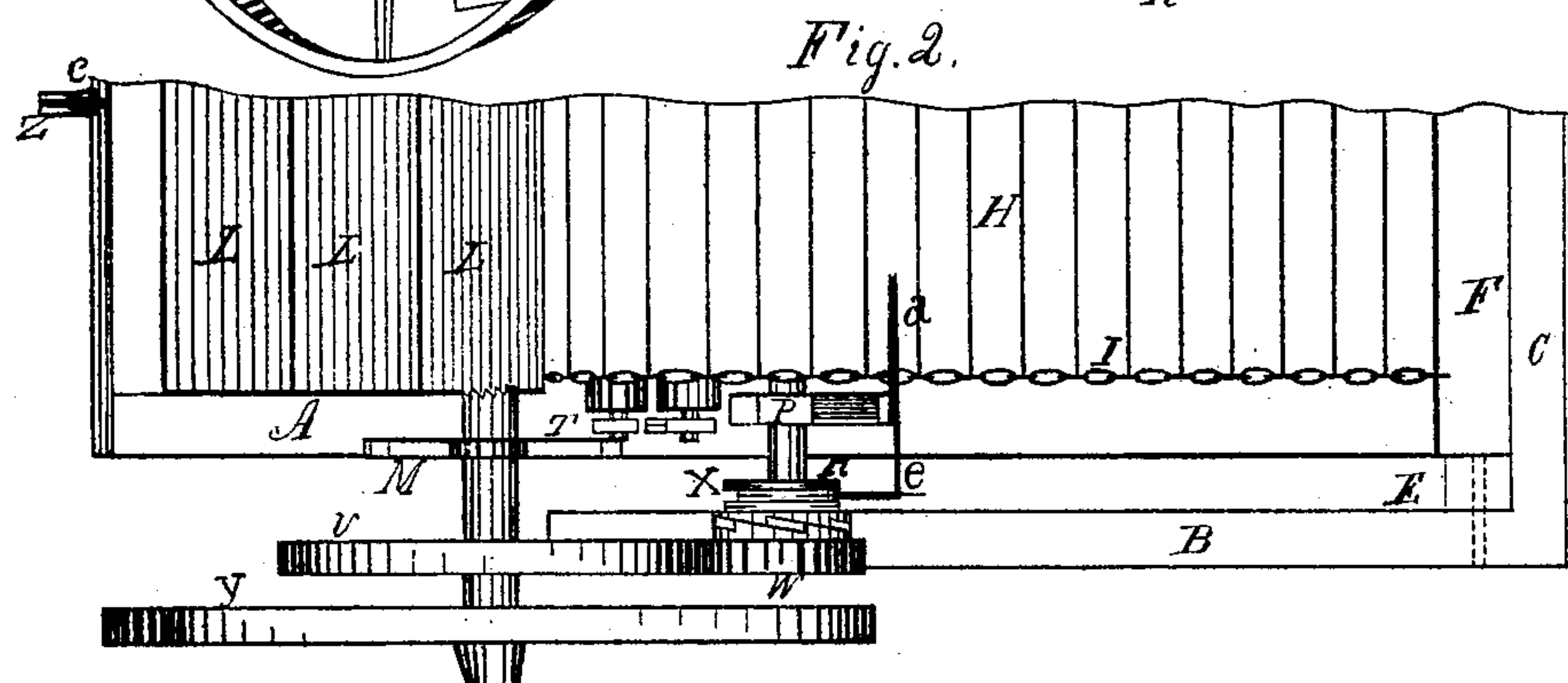
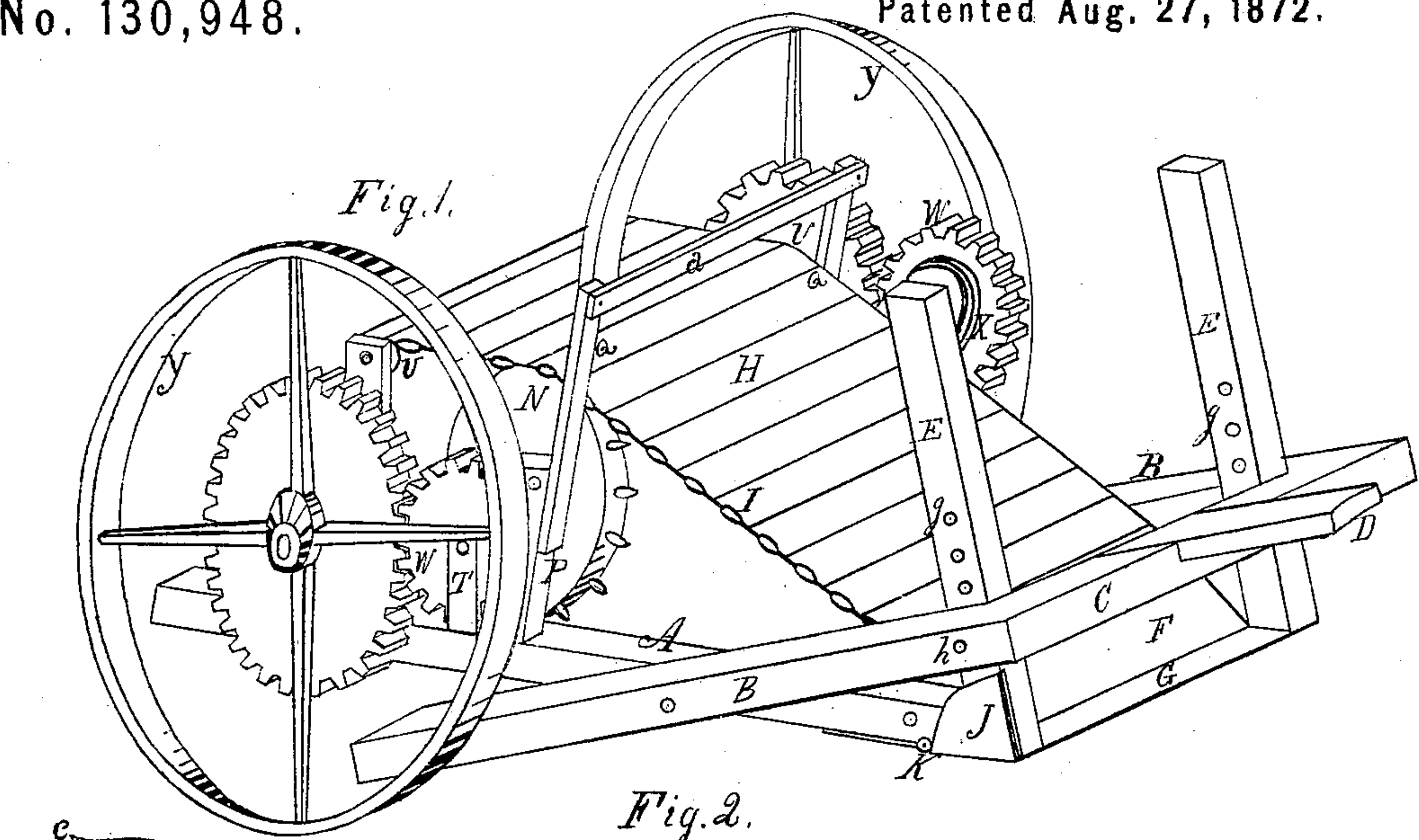
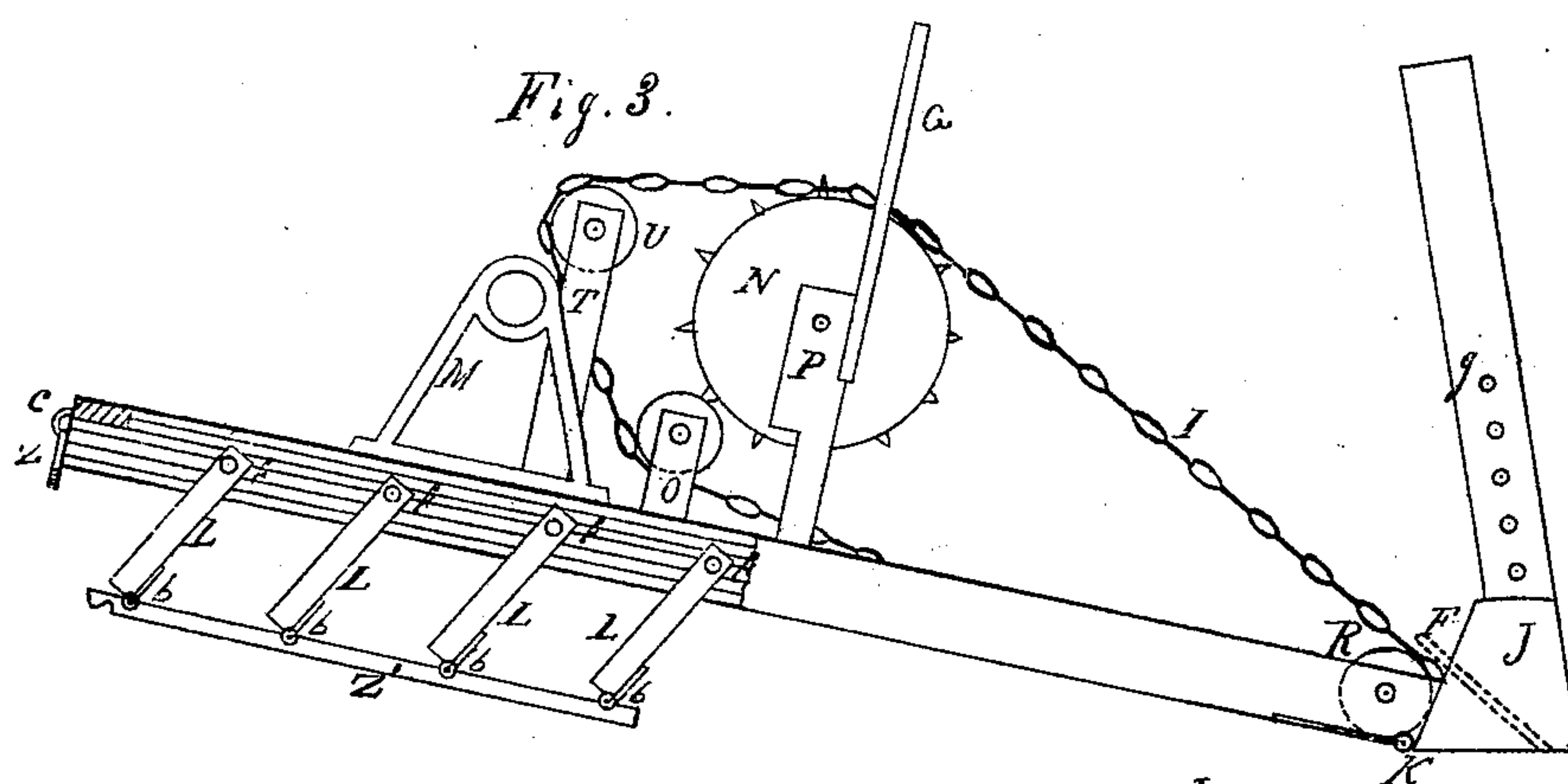


A. B. SMITH.
Improvement in Earth-Scrapers.
No. 130,948. Patented Aug. 27, 1872.



Scale of 4 feet



Witnesses
Wm H. Clarke
Amos Wood

Inventor
Amos B. Smith
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UNITED STATES PATENT OFFICE.

AMROY B. SMITH, OF HUNTSVILLE, TEXAS.

IMPROVEMENT IN EARTH-SCRAPERS.

Specification forming part of Letters Patent No. 130,948, dated August 27, 1872.

SPECIFICATION.

I, AMROY B. SMITH, of Huntsville, in the county of Walker and State of Texas, have invented an Improvement in Earth-Scrapers, of which the following is a specification:

The present invention relates to an improvement in that class of scrapers which is mounted on wheels and provided with slatted carriers for elevating the earth as it is being scraped into a receptacle in the rear of carrier; and its nature consists in the novel arrangement for throwing the earth onto the carrier and governing the depth which the scraper is to run in the ground in connection with the gearing, the latter being so arranged that both traveling-wheels operate to drive the belt, while, at the same time, the wheels may turn in opposite direction—as when the machine is turning around—and yet operate the carrier; as the whole is hereinafter fully described and shown.

In the drawing, Figure 1 is a perspective representation of my improved scraper; Fig. 2, a broken plan view of the same; Fig. 3, a longitudinal elevation thereof with the traveling-wheels removed to give a clearer view of the other parts.

A represents the main frame of the scraper, which is, at its rear part, carried above the ground by means of traveling-wheels *y y* whose axle-tree has bearings in bridges M secured to said frame A. To the front end of the frame A is hinged a share or cutting-plate, G, Fig. 1, as shown by letter K, a similar hinge being on the opposite side of frame A to hold the opposite end of the share in place. The ends of this share are bent upward, and fasten to standards E, which hold a pivoted frame, B C, in a fixed position when the frame A is set at the proper pitch to scrape the earth, holes *g h* being used to receive pins to hold the two frames together, and also being used to give the cutter G any required pitch relative to the said frame A, several holes being made in the standards that this compound adjustment may be made. This construction will be better understood when it is known that the tongue D is rigidly fastened to the pivoted frame B, and that the tongue bearing on the neck-yoke prevents the scraper from running too deep. Hence, if the pivoted frame B be raised up on the standards E the scraper G will run deeper in the ground. The carrier H is made of a series of metal slats, held together by endless chains I I, which are driven

by toothed wheels N. These wheels are secured to the same shaft as the pinions W; and when the pinions are locked by means of clutch-wheels X the pinions and toothed wheels rotate together. The clutch-wheels may slide on the shaft *n*, but the pinion-clutches are loose on the shaft, so that when the drive-wheels V V are rotated in the proper direction the carrier will elevate earth, and so that when the machine is turned around, one wheel, W, will rotate on the shaft without interfering with the movement of the other. This arrangement is important in working on curves, and it renders the machine operative where other machines of the older patterns cannot be successfully used. R represents the lower carrier-rollers, and U the upper roller, the roller U being placed in bearing-standards T and the rollers R being pivoted to the forward end of the frame A at such points as will bring the carrier under a lap-plate, F, which is pivoted to the cutter-plate G, and bridges over the space between it and the lower end of the carrier. The earth, after it leaves the carrier, falls onto a slatted bottom, L L, &c., at the rear of machine. The slats are pivoted to the frame A at their front edges, and they are held up in a position, as shown at Fig. 2, by means of a metal rod, Z', which is fastened to the front edges of the slats by eyes and staples, Fig. 3, and by means of a loop-catch, *c*, which catches under the end of rod Z' when the slats are closed, as at Fig. 2. This arrangement for dumping is very simple and convenient, the weight of the load turning the slats to let the earth through. The clutches X do not rotate on their shaft *n*, but they are arranged to slide, when operated upon by levers Q and clutch-rods *e*, so as to be thrown out of gear with the pinions W and allow the wheels *y* to travel without moving the carrier, as when moving to and from work.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

In combination with the main frame A, mounted upon two wheels and having the scraping-share G hinged to its front end, the frame B, pivoted to said main frame and connected with the tongue D, and the standard E rigidly connected to said scraper and adjustably connected to the frame B, for the purpose set forth.

Witnesses:

AMROY B. SMITH.

S. GIBBS,

C. B. SMITH.