

(No Model.)

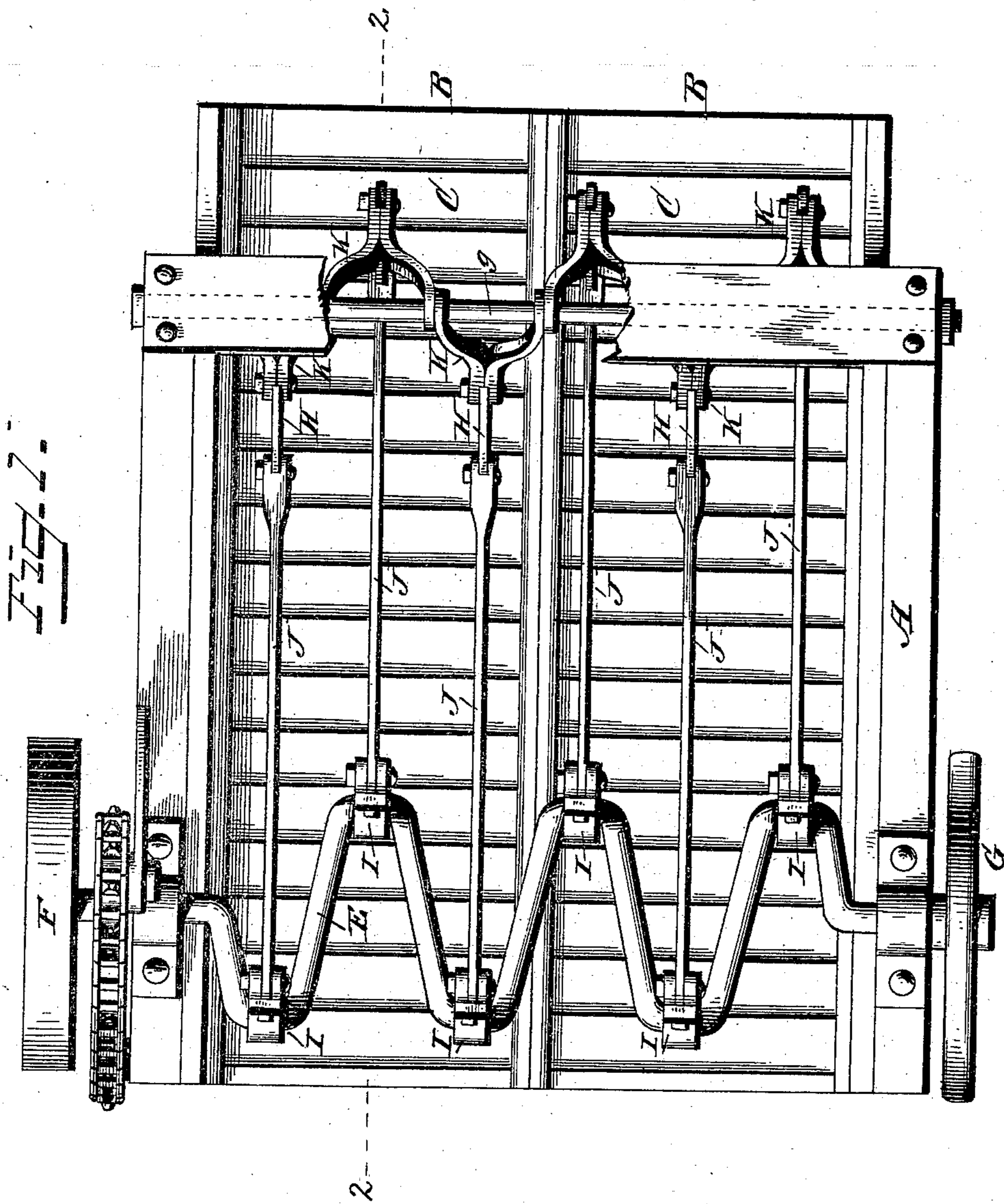
2 Sheets—Sheet 1.

F. H. SCHAFER.

BAND CUTTER AND FEEDER FOR THRASHING MACHINES.

No. 503,877.

Patented Aug. 22, 1893.



Witnesses
G. Williamson.
Benj. Munson.

Inventor
Frank H. Schafer.
per Cha. H. Fowler,
Attorney.

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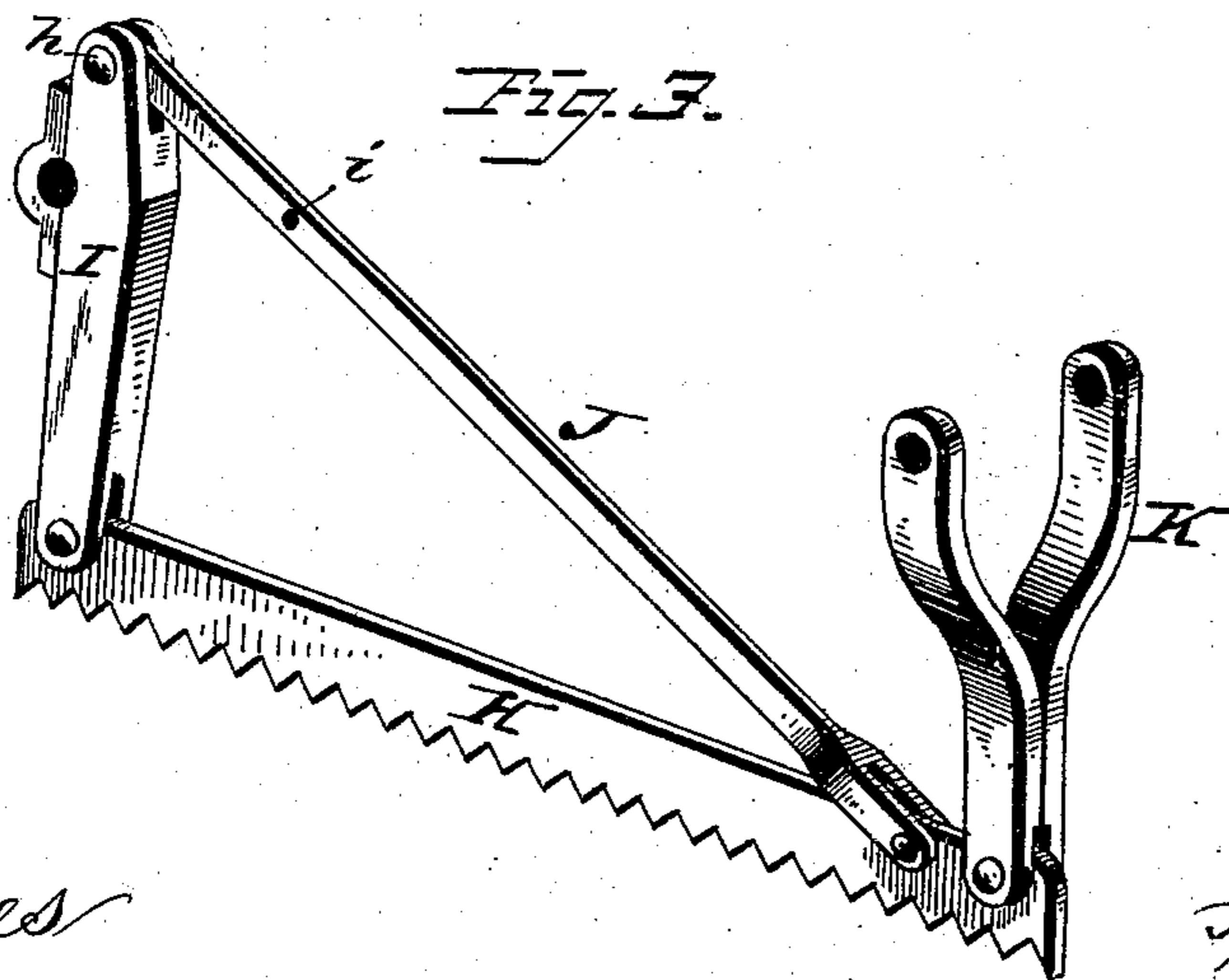
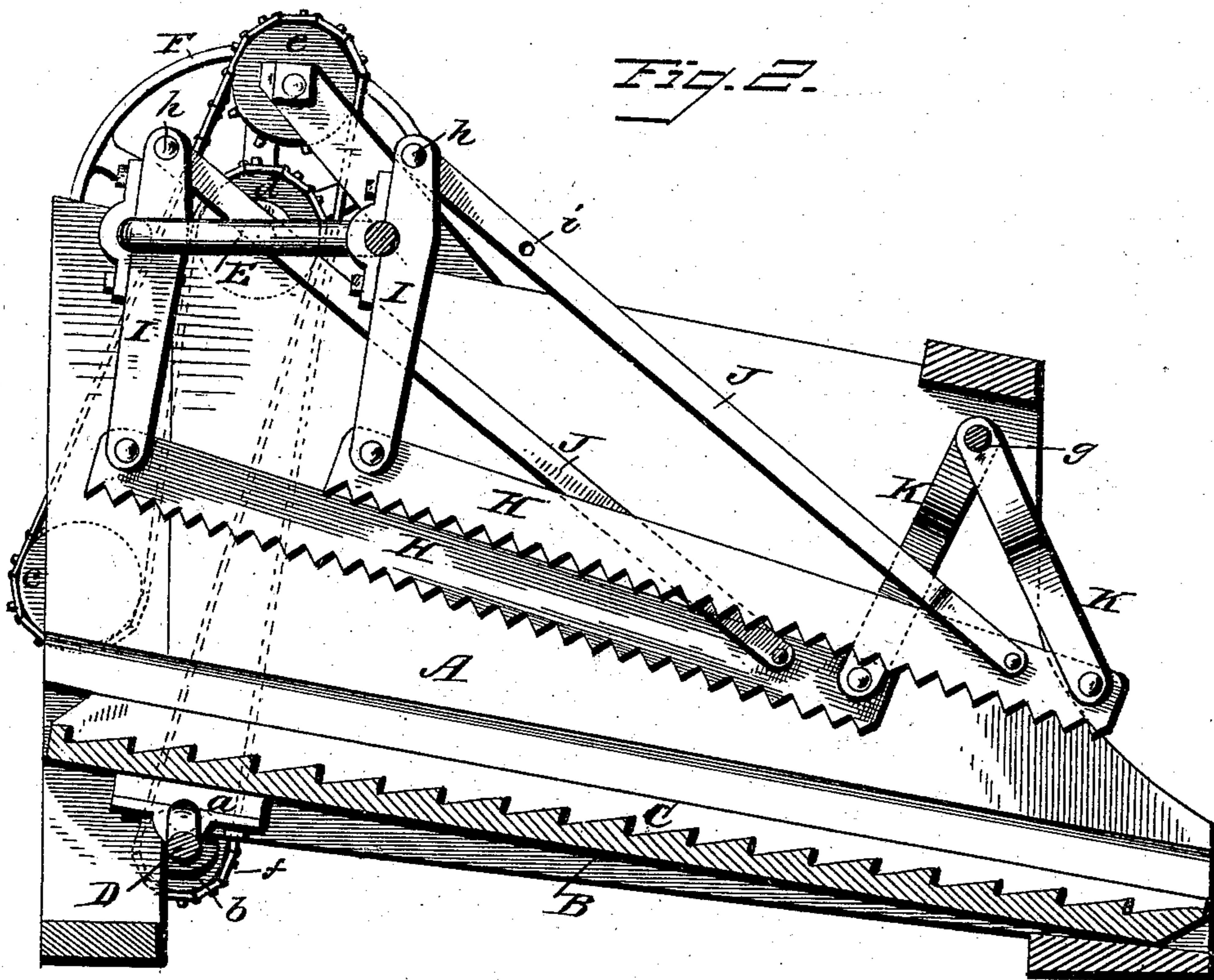
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UNITED STATES PATENT OFFICE.

FRANK. H. SCHAFER, OF BEAVER FALLS, MINNESOTA.

BAND-CUTTER AND FEEDER FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 503,877, dated August 22, 1893.

Application filed April 29, 1893. Serial No. 472,313. (No model.)

To all whom it may concern:

Be it known that I, FRANK. H. SCHAFER, a citizen of the United States, residing at Beaver Falls, in the county of Renville and State of Minnesota, have invented certain new and useful Improvements in Band-Cutters and Feeders for Thrashing Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has relation to certain new and useful improvements in band-cutters and feeders for thrashing-machines, and the object thereof is to improve this class of attachments or devices whereby a more perfect operation of the feeders will be assured without the danger of clogging and increased power given to the knives and the operating parts rendered more simple and effective. These several objects I attain by the construction substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings represents a top plan view of my improved attachment; Fig. 2 a longitudinal vertical section taken on line *z z* of Fig. 1; Fig. 3 a detail view in perspective of one of the cutting blades and its connecting parts.

In the accompanying drawings A represents a suitable frame to which the operating parts of the machine or attachment are connected and is provided with the usual tables B. These tables have a shouldered or corrugated surface C, the corrugations thereof extending transversely of the tables so as to act more effectively, carry the grain to the mouth of the thrashing machine and render its operation more perfect. These tables have imparted to them an alternately swinging or vibratory movement in a longitudinal direction through the medium of a compound crank-shaft D which has its bearings in the sides of the frame.

The crank-shaft D has its bearings in suitable boxes *a* upon the under side of the tables B, or connected thereto in any other preferred manner, said shaft having upon one end a sprocket-wheel *b* over which passes a sprocket-chain *f*. This sprocket-chain ex-

tends over suitable sprocket-wheels *c d e* the two former wheels having their bearings in the side of the frame A or to suitable supports connected thereto, as may be found desirable, while the latter mentioned pulley is suitably connected to one end of a compound crank-shaft E located above the tables B. The shaft E has motion imparted to it through the medium of a large pulley F over which passes a belt connecting with the driving power, and upon the opposite end of this shaft is a suitable fly wheel G.

The compound crank-shaft E is connected with notched cutting-blades H through the medium of the yokes I in which the cranks have their bearings, which yokes are connected at their lower ends to the cutting blades. To the upper ends of the yokes I are attached one end of braces J which extend down at an angle and are connected at their lower ends to the cutting-blades H. The cutting-blades at their forward or opposite ends are pivoted to yokes K which are loosely supported upon a stationary rod *g* secured to the frame A, said yokes having a swinging or vibratory motion when the cutting-blades are operated. The employment of the diagonal braces J brings the strain on the heels of the cutting-blades, and to adapt the machine to a more rapid feeding of the grain when the grain is dry, the cutting blades may be elevated by removing the pin *h* in the yoke I and engaging it with the hole *i* in the brace J, thus bringing the cutting-blades at a higher elevation and providing more space between them and the tables.

The adjustment of the cutting-blades enables the machine to be adapted to dry or damp grain and as the grain passes under the blades the bands will be cut in the usual manner.

It should be noticed that the several sprocket-wheels are so arranged with relation to each other and the sprocket-chain which passes over them, that the straw is prevented from becoming entangled with the chain and wheels and impede their operation. The sprocket-wheel *e* may be supported upon an adjustable arm *k* or in any other manner connected so as to allow the adjustment of the wheel to tighten the sprocket-chain.

In the construction above described the

usual rocking-lever in this class of machines is dispensed with and consequently increased power to the cutting-blades is obtained.

Having now fully described my invention,
5 what I claim as new, and desire to secure by Letters Patent, is—

A band-cutter and feeder attachment to thrashing machines, consisting of a suitable frame, tables supported therein and having
10 shouldered or corrugated surfaces extending transversely thereof, cutting blades, yokes upon their respective ends, diagonal braces

adjustably connected to the yokes at the rear ends of the cutting blades, and suitable means for imparting to the tables and cutting blades 15 the necessary vibratory or swinging motion, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FRANK. H. SCHAFER.

Witnesses:

HANS GRUNNERUD,
GUNERIUS T. GRUNNERUD.