

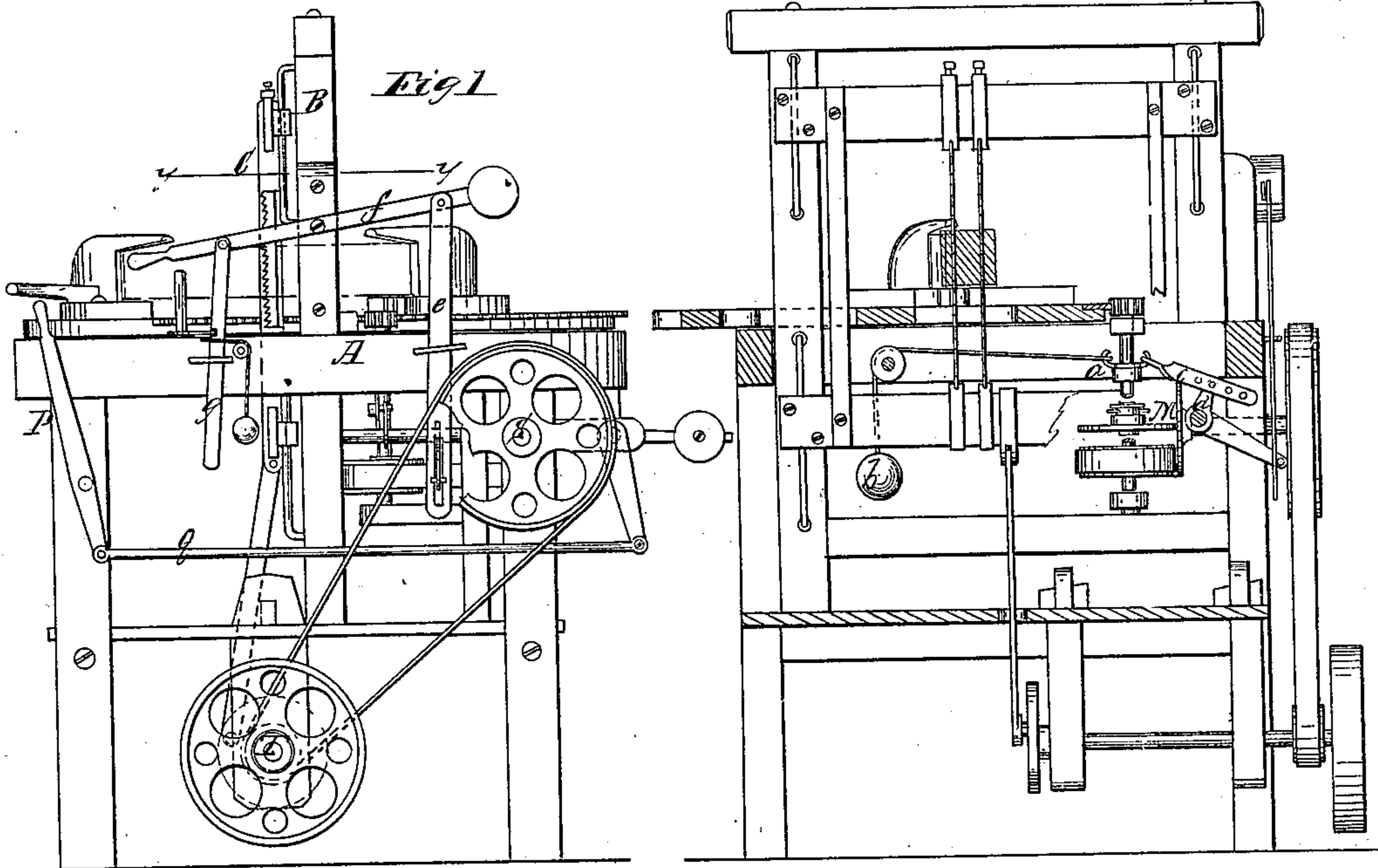
*P. S. Beidler,*

*Making Fellies.*

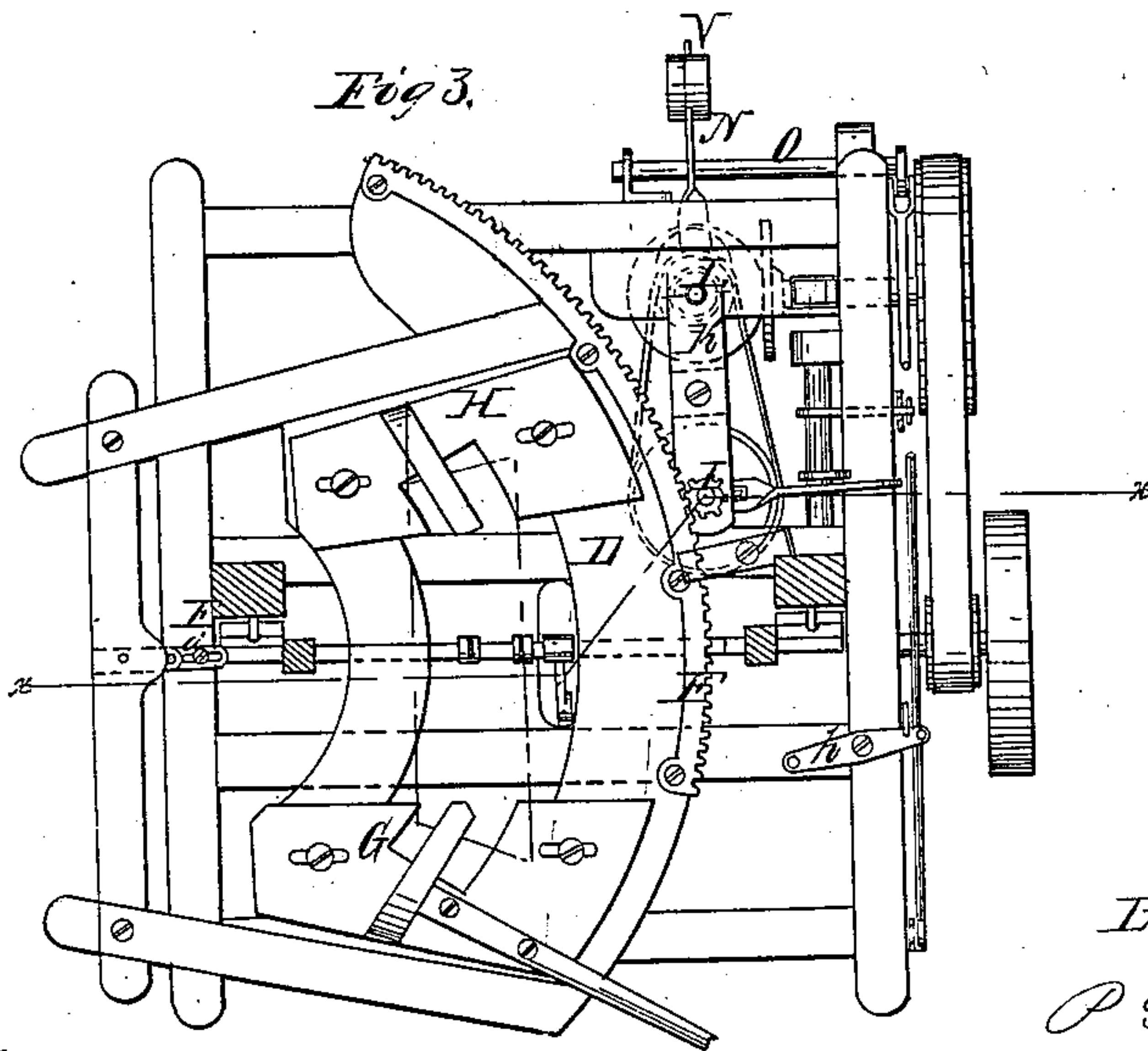
*N<sup>o</sup> 81,332.*

*Patented Aug. 25, 1868.*

*Fig 2,*



*Fig 3.*



*Witnesses:  
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C. L. Cotton*

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# United States Patent Office.

PETER S. BEIDLER, OF SOUTH EASTON, PENNSYLVANIA.

Letters Patent No. 81,332, dated August 25, 1868.

## IMPROVEMENT IN SAWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, PETER S. BEIDLER, of South Easton, in the county of Northampton, and State of Pennsylvania, have invented a new and useful Improvement in Sawing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side elevation,

Figure 2 represents a transverse section on the line  $xx$  of fig. 3; and

Figure 3 represents a horizontal section on the line  $yy$  of fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide a simple and effective adjustable machine for sawing felloes of various sizes.

It consists of an arrangement of means for feeding an adjustable circular carriage.

Also an arrangement of means for automatically stopping the feed when the cants have been sawed through.

Also an arrangement of means for automatically varying the feed, all as will be more fully described on reference to the accompanying drawings, wherein—

A represents a framing, whereon are erected the housings B, for supporting the saw-gate C, in the usual manner.

D represents a carriage, pivoted adjustably at the centre, E, provided with a feeding-rack, F, on its segmental periphery, and with the adjustable head-blocks G and H.

I represents a pinion on a vertical feeding-shaft, arranged in the swinging frame K, in the axis of which is another vertical shaft, L, provided with a friction feeding-disk, M, arranged to slide vertically on the said shaft, by means of a forked lever, N, taking into an annular groove in the hub of the same.

The disk communicates rotary motion to the saw-shaft L, by a spline in the hub thereof, working in a longitudinal groove in the shaft.

The lever N is keyed to the crank-shaft O, which latter is connected to the hand-lever P by the connecting-rod Q.

Motion is communicated to the disk M by another disk, R, on the shaft S, which is actuated by a belt from the driving-shaft T.

The lever N is provided with a counterpoise, U, whereby the disk is maintained in any position in which it is set.

The shaft upon which is the feeding-pinion, is provided with a collar, by which it is connected on one side by a cord, to the weight  $b$ , and on the other by an adjustable rod,  $c$ , to the crank-shaft  $d$ , which is connected by a vertical slotted bar,  $e$ , to the weighted hand-lever  $f$ , from the front end of which is suspended a notched bar,  $g$ .  $h$  is a trip-catch, pivoted to the frame, and provided with a vertical stud, which is acted upon at the proper time by a lug on the carriage, to disengage it from the said notched plate, whereby the weighted lever  $f$  will disengage the feeding-pinion from the rack.

When it is desired to change the machine for sawing felloes of different sizes, the carriage is adjusted on the axis  $a'$ , to agree with the size required, as will be well understood, and the adjustable connecting-rod  $c$  is also changed in its connection with the arm of the oscillating-shaft  $d$ , so as to move the swinging frame which supports the feeding-shaft, to bring it into proper contact with the rack F on the carriage; and the head-blocks are also adjusted in their position on the carriage, to agree with the same, of which there may be, preferably, two in the saw-gate, one for sawing the outside of the felloes, and one for sawing the inside thereof.

The carriage is moved back by hand, and it may also be moved by hand to bring the saws into contact with the cant at starting, when, by swinging the weighted lever down, and setting it by the trip-catch, the feed-pinion will be brought into and maintained in gear with the rack F, and the feeding will be continued until the stud or lug on the carriage strikes the trip-catch. The weight  $b$  is designed to be of sufficient capacity to hold the pinion in gear with the rack.



When it is designed to change the feed, the operator makes a movement of the hand-lever P in the proper direction, which produces the said change by action on the movable feeding-disk M, as will be readily understood.

By means of the arrangements herein described for effecting the several changes, it will be observed that the operator can, with great convenience, govern the several sets of devices.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

1. The combination, with the adjustable carriage D, of the adjustable feeding-apparatus, consisting of the trip-catch *h*, pendant-bar *g*, weighted lever *f*, slotted bar *e*, connecting-rod *c*, rock-shaft *d*, feed-shaft and pinion I, and swinging frame K, arranged as described for the purpose specified.

2. The combination, with the feeding-shaft and pinion I, arranged upon the swinging frame, of the means for changing the feed, when arranged substantially as and for the purpose described.

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Witnesses:

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