(No Model.)

I. WALBORN.

HOOP SPLITTING MACHINE.

No. 298,044. Patented May 6, 1884.

Fig. 1.

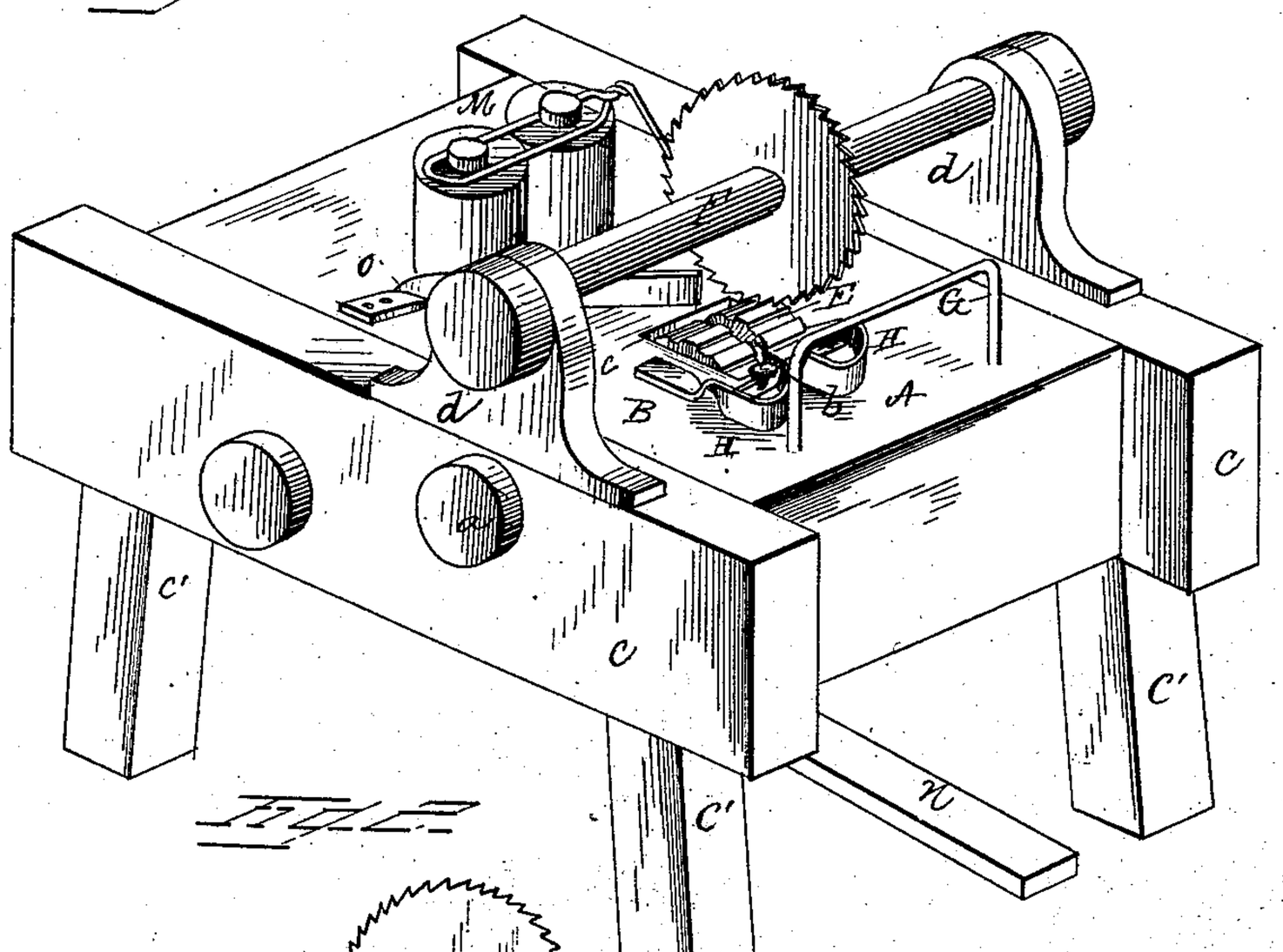


Fig. 2.

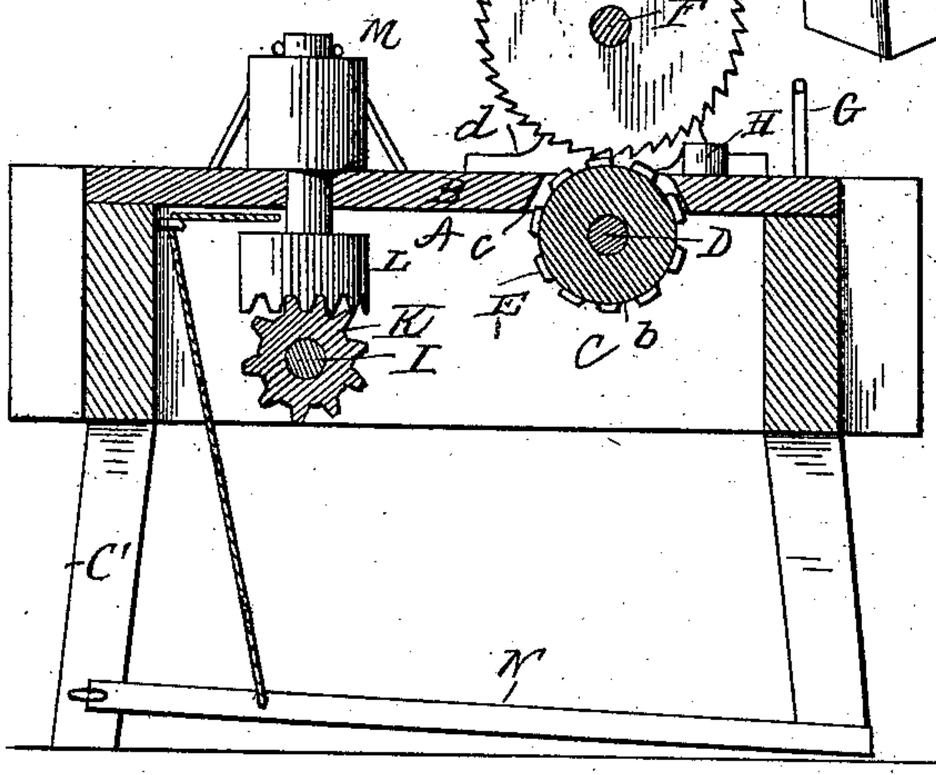
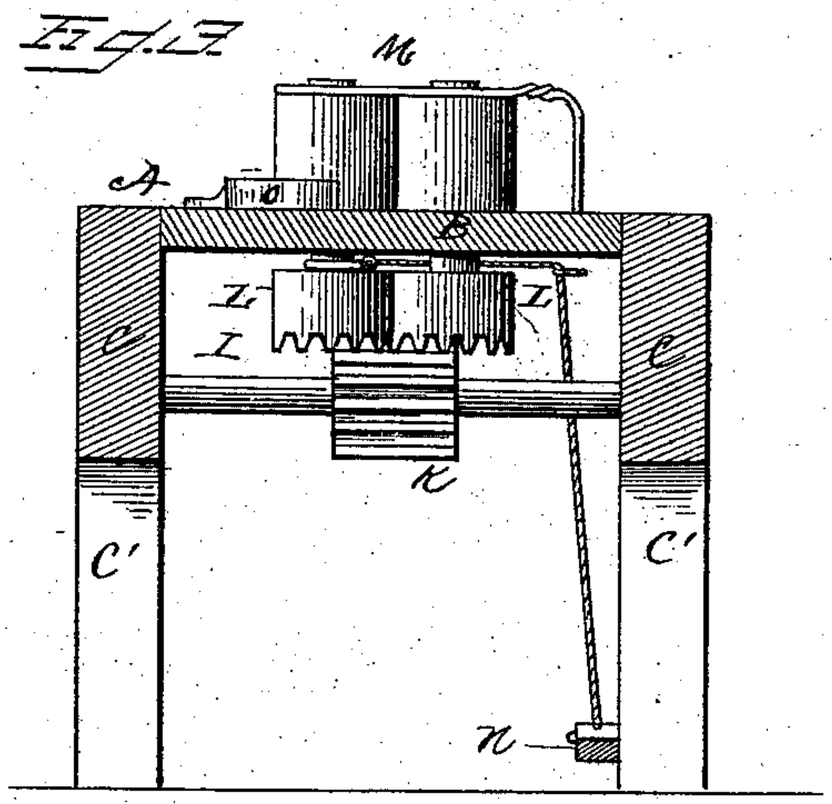


Fig. 3.



WITNESSES
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UNITED STATES PATENT OFFICE.

ISRAEL WALBORN, OF FREMONT, OHIO.

HOOP-SPLITTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 298,044, dated May 6, 1884.

Application filed February 29, 1884. (No model.)

To all whom it may concern:

Be it known that I, ISRAEL WALBORN, a citizen of the United States, residing at Fremont, in the county of Sandusky and State of Ohio, have invented a new and useful Hoop-Splitting Machine, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to a machine for sawing hoops; and it has for its object to provide a machine for this purpose which shall be simple in its construction and thoroughly effective in its operation.

A further object of the invention is to provide devices for automatically feeding the strip of wood from which the hoops are to be cut to the saw.

A further object of the invention is to provide a gage or marker whereby the strip of wood from which the hoop is to be sawed is held in place with relation to the saw and a hoop of the desired thickness is cut.

With these ends in view the invention consists in the improved construction and combinations of parts hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a machine constructed in accordance with my invention. Fig. 2 is a longitudinal vertical section of the same, and Fig. 3 is a transverse section just in rear of the saw.

In the accompanying drawings, in which like letters refer to corresponding parts in the figures, A represents the platform or frame upon which the mechanism is placed, and which consists of the top or table B, having side strips, C, and supported by suitable legs, C'.

D represents a shaft which has bearing in the sides C, near the front end thereof, the same passing below the top or table. Upon the end of this shaft D is rigidly mounted a pulley, *a*, which is adapted to receive a band, by which means said shaft is revolved. At about the center of this shaft is provided a corrugated disk, E, having a circumferential groove, *b*, the teeth of the saw revolving therein. This corrugated disk projects upwardly, or may be said to be so located as to extend through an opening, *c*, formed on the top or table. Upon the sides of this table are secured brackets *d*, in which are mounted the ends of a shaft, F, having pulleys at their ends to receive bands or belts. At about the center of this shaft F is rigidly mounted the saw, which is circular and of the ordinary construction. Upon the forward end of the table B is secured a bracket, G, through which the strip of wood from which the hoops are to be sawed is passed, and which serves as a guide for the same.

H represents brackets or guides, which are secured to the top or table B, adjacent to the opening of the same. These brackets or guides are bent rearwardly at their forward ends, and the said ends held by means of blocks *e*, operated by set-screws, by which means the ends of the guides may be adjusted to the thickness of hoop to be sawed and guide the same.

I represents a shaft having bearing in the sides of the supporting-frame near the rear end thereof, said shaft being provided at one of its ends with a rigidly-mounted pulley and at about its center with a pinion-wheel, K, which is adapted to mesh with rollers L, the bottom faces of which are geared. These rollers project through an opening in the table, and are formed at their upper ends with trunnions, which are mounted to revolve in a bracket, M. Upon one of the rear legs of the table is secured a lever, N, which has connected thereto a rope or chain, which passes through an eye or loop projecting downwardly from the under side of the table, and is connected to the roller which is farthest therefrom, whereby upon said lever being depressed the said roller is drawn close to and nearly in contact with the adjacent roller for a purpose which will be explained.

Upon the top of the table B and near the rear end of the same, adjacent to one of the rollers, is secured the end of a bar or rod, O, the end of which is located adjacent to the saw.

The operation may be briefly described as follows: The strip of wood is fed to the saw passing between the guides H. Motion is imparted to the several shafts by bands or belts, the power being applied first to the shaft carrying the saw. As the material is fed to the saw, the corrugated roller, which is located adjacent thereto, feeds the strip of wood forward, and the thin strip or hoop passes to the left of the rod O, while the main piece passes between the rollers L, which, in conjunction

with the corrugated disk on the forward shaft, serve to draw the strip forward, the said rollers L being held in close contact with the strip by means of the lever having the connecting-rope.

It will be seen that in lieu of pulleys connected by belts the ends of the several shafts may be provided with gears, which will accomplish the same result.

It will also be obvious that the machine above described is comparatively simple, and that it is thoroughly effective and efficient in its operation.

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

1. In a hoop-sawing machine, the combination, with a suitable supporting-frame, the top of which is formed with an opening near the front end thereof, of a shaft carrying a corrugated disk located beneath said top and bearing in the sides of the supporting-frame, a shaft mounted in brackets on the top of said table, guides H, secured at their rear ends near the rear end of the corrugated disk, their other or free ends extending forwardly and then bent rearwardly to form a U shape, and blocks operated by set-screws for adjusting the same, substantially as set forth.

2. The combination, with a suitable supporting-frame the top of which is provided with an opening near its front end, of a shaft carrying a pulley mounted in the sides thereof beneath said table, said shaft being also provided with a corrugated disk having a circumferential groove, a shaft carrying the saw, adjustable guides H, secured adjacent thereto, and a bracket, G, secured to the table near the front end thereof, substantially as set forth.

3. The combination, with a suitable frame or support of a shaft located in the sides thereof, and provided at about its center with a pinion-wheel, of vertical rollers the upper ends of which bear in a bracket secured upon the table, and having their lower ends geared to engage said pinion, and a rod secured to the top of the table, its front end extending forwardly adjacent to the saw, substantially as set forth.

4. The combination, with vertical rollers loosely mounted at their upper ends, and adapted to mesh with a pinion at their lower ends, of a lever, and a cord connecting said lever with one of said rollers, substantially as and for the purpose set forth.

5. The combination, with a suitable supporting-frame carrying a corrugated disk provided with a circumferential groove, and with a saw mounted upon a shaft suitably journaled, of vertical rollers loosely connected at their upper ends, and adapted to mesh with a pinion-wheel at their lower ends, and a lever connected with one of said rollers, substantially as set forth.

6. The combination, with a suitable supporting-frame carrying a corrugated disk provided with a circumferential groove, guides located adjacent to said disk, and a saw mounted upon a shaft above said disk, of vertical rollers located in rear of the saw, said rollers being loosely connected at their upper ends, and adapted to mesh with a pinion at their lower ends, a rope or chain connected to one of said rollers, a lever for operating the same, and a rod secured adjacent to said rollers at its rear end, its forward end being located adjacent to the corrugated disk and saw, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ISRAEL WALBORN.

Witnesses:
E. F. DICKINSON,
J. H. ORWIG.