E. O. NEVELS.

GUMMING APPARATUS FOR GIN SAWS.

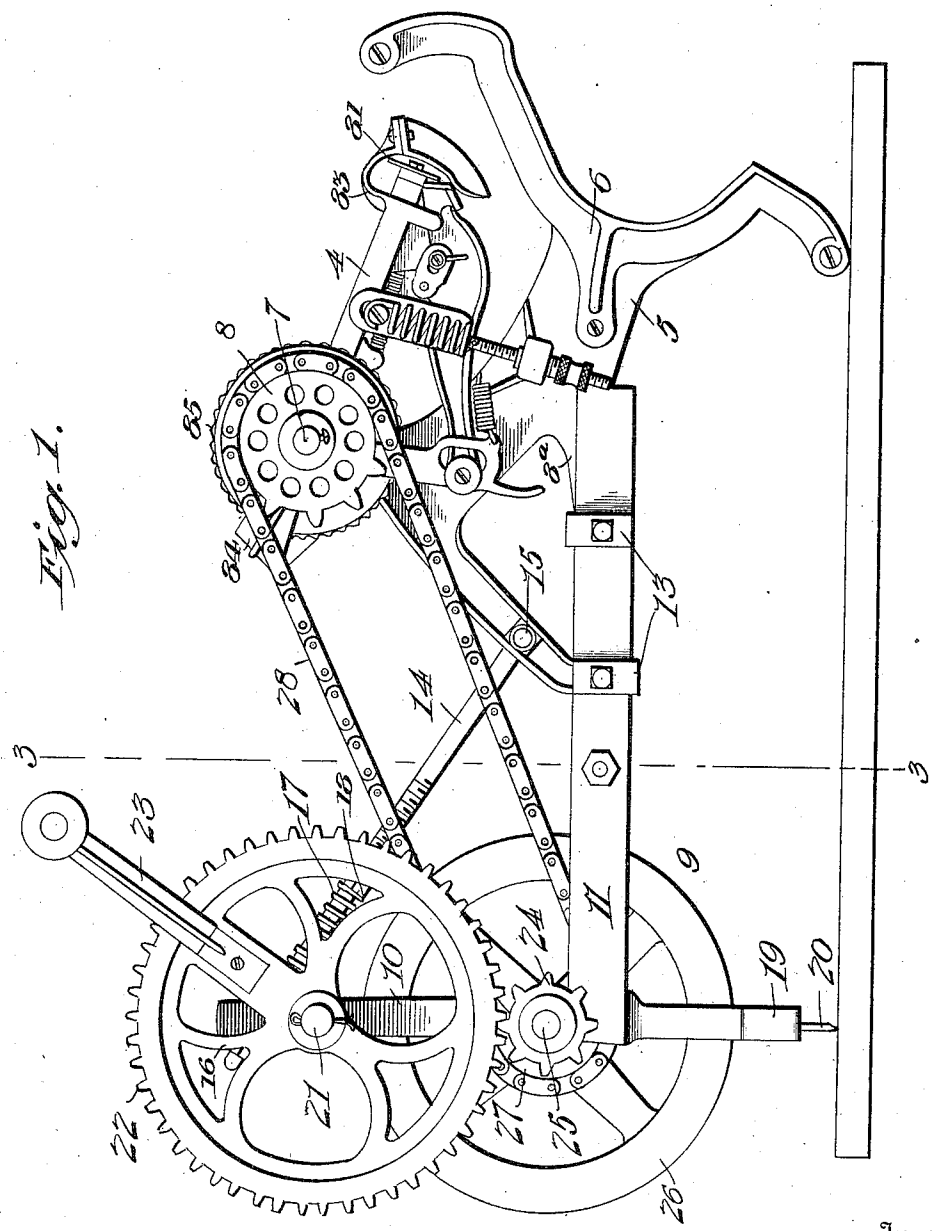
APPLICATION FILED SEPT. 15, 1909.

1,049,258.

Patented Dec. 31, 1912.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

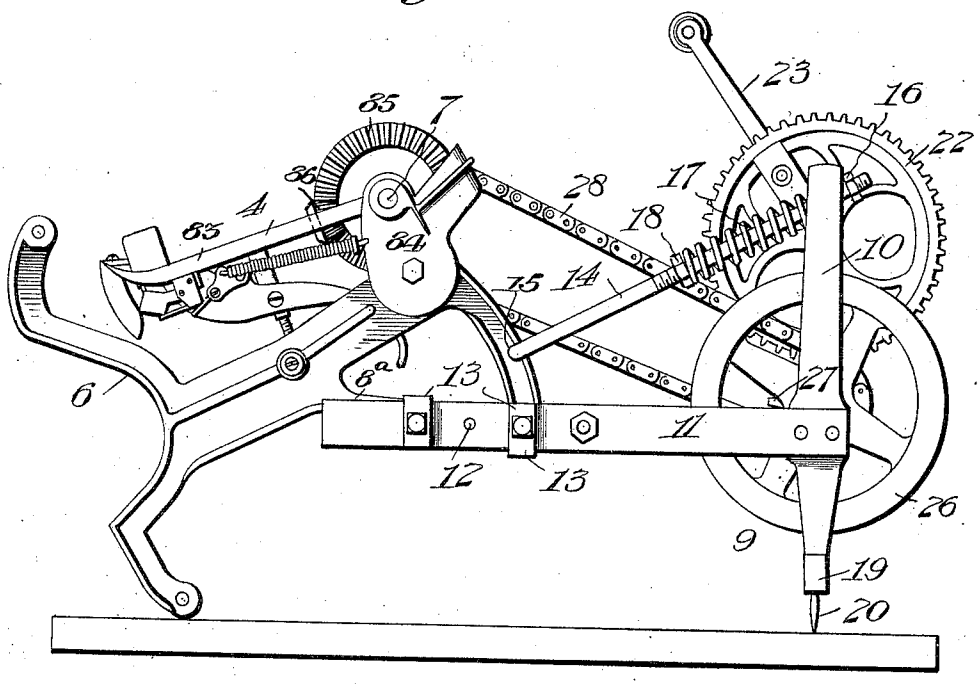
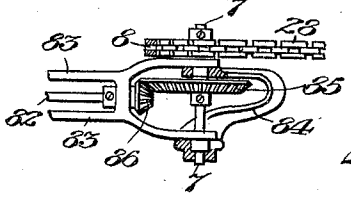


Fig. 4



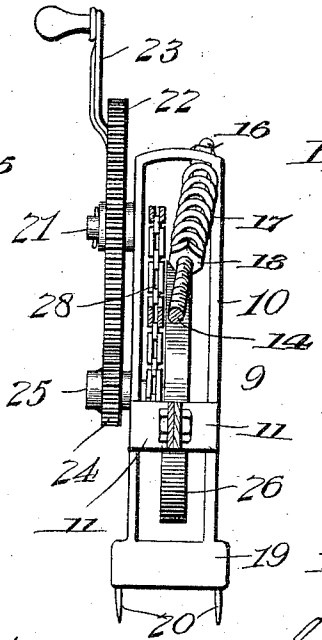


Fig. 3

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GUMMING APPARATUS FOR GIN-SAWS.

1,049,258. Specification of Letters Patent. Patented Dec. 31, 1912.

Application filed September 15, 1909. Serial No. 517,826.

To all whom it may concern:

Be it known that I, EDWARD O. NEVELS, a citizen of the United States, residing at Enterprise, in the county of Coffee and State of Alabama, have invented new and useful Improvements in Gumming Apparatus for Gin-Saws, of which the following is a specification.

The present invention relates to gumming apparatus for gin saws, and the primary object is to provide a structure, which may either be in the form of an attachment to a well known form of gummer, preferably of the type shown in the patent to Wood, No. 620,726, March 7, 1899, or may constitute an essential part thereof, said structure constituting driving means for the gumming mechanism that will permit a much faster speed with the same accuracy, and being much handier to operate.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a side elevation of the gummer. Fig. 2 is a view in elevation of the opposite side. Fig. 3 is a vertical cross sectional view on the line 3—3 of Fig. 1. Fig. 4, is a detail view showing the gearing connecting the gummer shaft with its driving mechanism.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment represented by the accompanying drawings, the gumming mechanism, indicated generally by the reference numeral 4, and which may be of a known type as aforesaid, includes a rotary gumming file 81 Fig. 1, hereinafter termed the rotary gummer, carried by a shaft 82, Fig. 4, which is mounted in a gear frame 83 forming part of a main frame 5. This main frame includes a yoke 6 for straddling the space blocks between the gin saws and also supports by means of an intermediate frame piece 84 a transverse shaft 7 on which is mounted a sprocket wheel 8 and a bevel-gear 85 in mesh with the teeth of a beveled pinion 86, Figs. 2 and 4, fast on said shaft 82 of the rotary gummer 81; whereby the rotation of said sprocket wheel is transmitted to said rotary gummer. The details of the gumming mechanism, which form no part of the present invention, will be more fully understood by reference to the patent thereon, No. 620,726, hereinbefore referred to. The within described driving mechanism, including said sprocket wheel 8, and beveled gear 85 is substituted for the hand crank shaft and beveled gear shown at Z, H and *h* in said patent.

Pivotally mounted on the lower portion of the main frame 5 is a supplemental frame, designated generally by the reference numeral 9. This supplemental frame includes a vertically disposed yoke 10, to which are secured forwardly extending arms 11, said arms being bent inwardly, and disposed on opposite sides of the web 8^a of the main frame, being pivotally connected to said main frame, as shown at 12. Clips 13, connecting the arms 11 and extending on opposite sides of the web 8^a, limit the swinging movement of the supplemental frame 9 with relation to the main frame. A rod 14, pivotally mounted, as shown at 15 in the main frame, has a sliding engagement in a collar 16 Figs. 2 and 3 carried by the upper cross bar of the yoke 10, and mounted on this rod, is a coiled spring 17, one end of which abuts against the collar 16, the other end bearing against an abutment nut 18 on the rod. The lower cross bar 19 of the yoke 10 is provided with supporting spurs 20.

Journaled on a stud 21, carried by one side of the yoke 10, is a gear wheel 22, to which is fastened a handle crank 23, and this gear wheel meshes with a pinion 24 on a shaft 25 that is journaled in the yoke, the shaft carrying a balance wheel 26 arranged in the yoke and a sprocket wheel 27. A sprocket chain 28 passes around the sprocket wheel 27, and the sprocket wheel 8.

The saws of a gin being arranged face to face on a single shaft in alinement, in the usual manner with space blocks between adjacent blades, the saw gummer is applied to the saws one after another until the whole series has been gummed.

In using the device, the yoke 6 is arranged between the gin saws, upon the saw supporting shaft or spacing collars, and the yoke 10 rests upon one of the frame beams of the machine, thus supporting the apparatus in proper relation to gum the saws. By operating the handle crank 23, it will be obvious that the shaft 7 of the gumming mechanism will be driven at a high rate of speed, and with comparatively little exertion on the part of the operator after the mechanism is placed in operation, because of the

balance or fly wheel 26. The slight pivotal movement allowed between the main frame 5 and the supplemental frame 9, together with the yielding connection between them, serves at all times to maintain the sprocket chain 28 taut.

It will be obvious that the device is simple, and experience has demonstrated that it adds greatly to the usefulness of the gummer. Furthermore it will be apparent that the structure may be employed either as an attachment to machines already in use, or it may be made an essential part of the driving mechanism.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. A gin-saw gummer comprising a frame provided with a space-block straddling yoke, a rotary gummer, and mechanism for driving the gummer comprising a bevel gear wheel, a sprocket wheel and a shaft common to the two in combination with a supplementary frame pivotally connected with the gummer frame, means for adjusting the supplementary frame on its pivot and yieldingly securing it in position, a sprocket wheel mounted on the supplementary frame, and a sprocket chain connecting said sprocket wheel with the sprocket wheel first named.

2. An attachment for a saw-gummer, comprising a frame detachably and pivotally secured to the said gummer and having an upright yoke provided with depending supporting spurs, a rod connected to the gummer and having a slidable engagement with the yoke, an abutment arranged on the rod and a coiled spring arranged around the said rod between the abutment and the yoke for yieldingly supporting the frame relative to the gummer, and driving gearing journaled in the yoke of the supplemental frame and adapted to be connected to the gummer mechanism.

In testimony whereof, I affix my signature in presence of two witnesses.

EDWARD O. NEVELS.

Witnesses:
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F. F. PRICE.