(No Model.)

C. W. MANN.

GIN SAW.

No. 287,450. Patented Oct. 30, 1883.

Fig. 1.

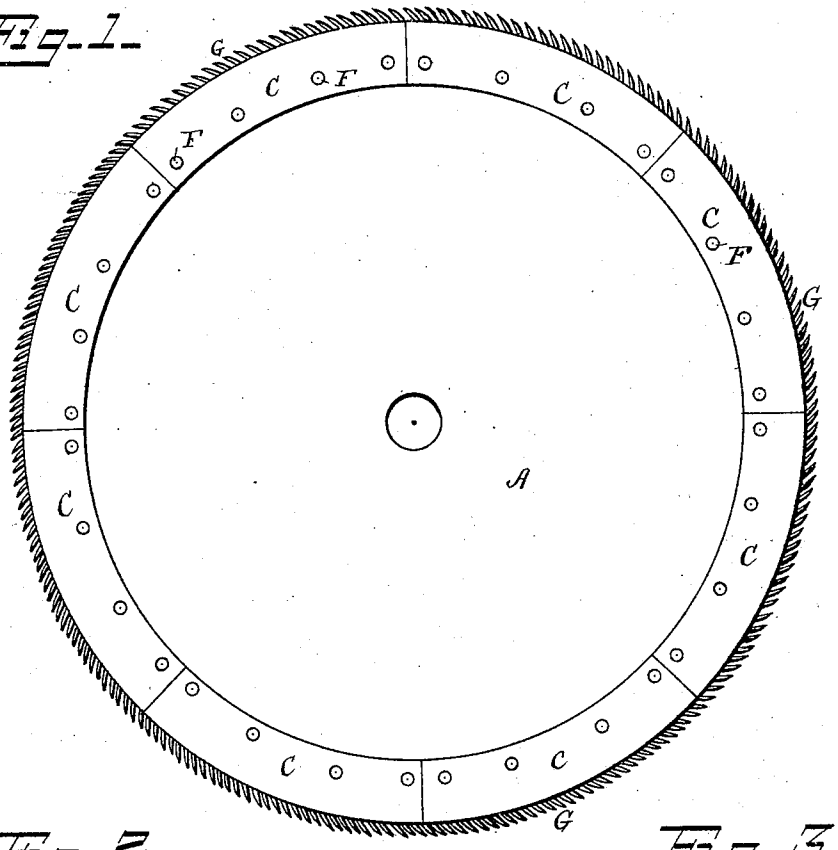


Fig. 2.

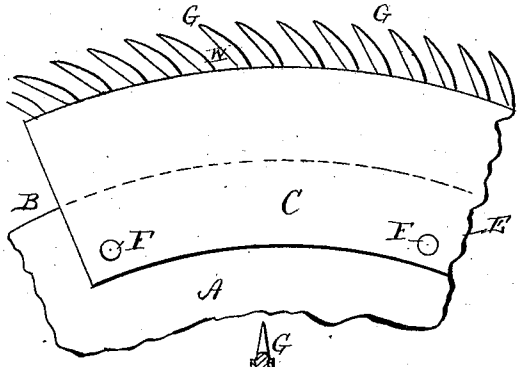


Fig. 3.

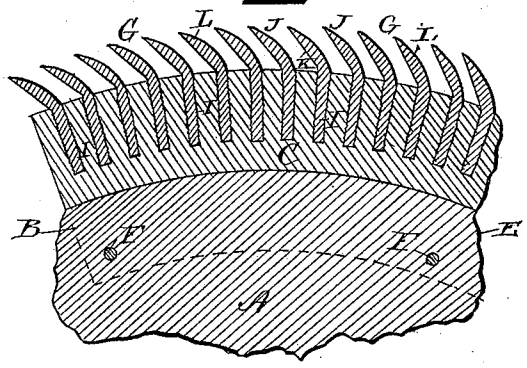


Fig. 4.

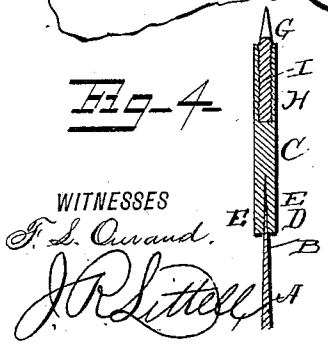
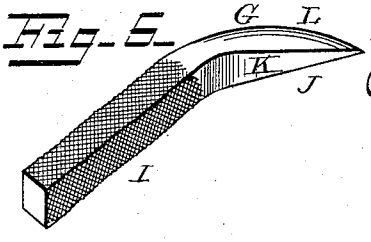


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES W. MANN, OF SAN MARCOS, TEXAS.

GIN-SAW.

SPECIFICATION forming part of Letters Patent No. 287,450, dated October 30, 1883.

Application filed July 9, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. MANN, a citizen of the United States, residing at San Marcos, in the county of Hays and State of Texas, have invented a new and useful Gin-Saw, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to gin-saws; and its object is to provide means for enabling the ready and convenient detachment of the teeth for substitution or other purposes, whereby superior advantages in point of simplicity, inexpensiveness, durability, and general efficiency are secured.

In the drawings, Figure 1 is a side elevation of a gin-saw embodying my improvements. Fig. 2 is a side view, in detail, of a section of the periphery of the saw. Fig. 3 is a longitudinal sectional view of the section shown in detail, Fig. 2. Fig. 4 is a transverse sectional view of the detail section shown in Fig. 2. Fig. 5 is a perspective detail view of one of the teeth.

Referring to the drawings, A designates the blade of the saw, which consists of a plate or disk having a regular periphery; B, that is preferably beveled to the edge, as shown. On the periphery of the disk A are secured a number of segmental plates or sections, C, forming a continuous series, these sections being bifurcated, as at D, on their inner edges, so that the edge of the disk will be received into the bifurcations, and be embraced by the sides E E of the bifurcated portions of the sections, while rivets F, or other suitable fastening devices, are passed through the sides E E and through the disk A, to securely retain the sections on the edge of the disk. The teeth G are cast in the solid portions H of the sections C, that project from the periphery of the disk, and they project from the edges of these solid portions. The teeth G consist of perfectly-straight portions I, that are preferably roughened, for purposes that will be presently described, and pointed portions J, that are bent at an angle to the main portions I, and have straight under edges, K. The sections C can be formed of cast-iron, and the teeth, which are preferably formed of steel, are cast in the solid portion H up to the bend, when these straight portions I of the teeth will all radiate from a line passing through the center of the disk A, and the roughened surface of the same will obviate any possibility of the teeth becoming accidentally drawn from or displaced in the sections C. The straight securing portions I of the teeth are preferably rectangular in cross-section, while the portions J, which project from the edges of the sections C at the desired angle of inclination, are formed round, and are pointed, their rear edges, L, being somewhat curved to effect the pointing; but their under edges, K, remain straight, as shown.

The advantages of my invention will be readily understood and appreciated. In my invention the fine steel teeth will wear much longer, and are not liable to become bent or displaced. The smooth, round, thorn-like shape of the projecting portions of the teeth will give a better staple, and be especially efficient; and there is a well-defined space between each tooth, and the length of these teeth will effect less chipping of the lint.

My invention also admits of easy substitution in case the teeth became worn or broken by stone or other hard substances, so that the periphery of the saw will always be complete and up to its full capacity.

It will also be understood that the saws at present in use can be readily equipped with my improvements by simply striking off their teeth and turning up the blades, ready for the reception of the herein-described toothed sections.

If necessary, the gin-ribs to be used in connection with my improved saw can be provided with a crease or depression in each side to provide for the passage of the sections C.

I claim as my invention—

1. As an improvement in gin-saws, the combination of the disk or blade, the segmental plates having the solid edge portions, and secured to the periphery of the disk, and the series of teeth having straight shanks that are inclosed in the said solid edge portions, and pointed, thorn-like projecting portions bent at an angle to the shanks, the teeth being secured in a continuous row on each segmental section, with all the shanks radiating from the center of the blade and all the points at a corresponding angle to the periphery of said blade, substantially as and for the purpose set forth.

2. The combination, in a gin-saw, with the segmental plates or sections, of the teeth having straight roughened shanks square in cross-section, by which the teeth are secured in the edges of the sections, with all the shanks inclosed in said edges and extending radially from the center of the circle, and the pointed, thorn-like projecting ends bent at an angle to the shanks, and formed with rounded rear edges and straight under edges, K, substantially as and for the purpose set forth.

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

CHARLES WESLEY MANN.

Witnesses:
B. B. ROSE,
THOS. H. FRANKLIN.