

(No Model.)

G. C. ILES.  
SAW.

No. 424,301.

Patented Mar. 25, 1890.

Fig. I.

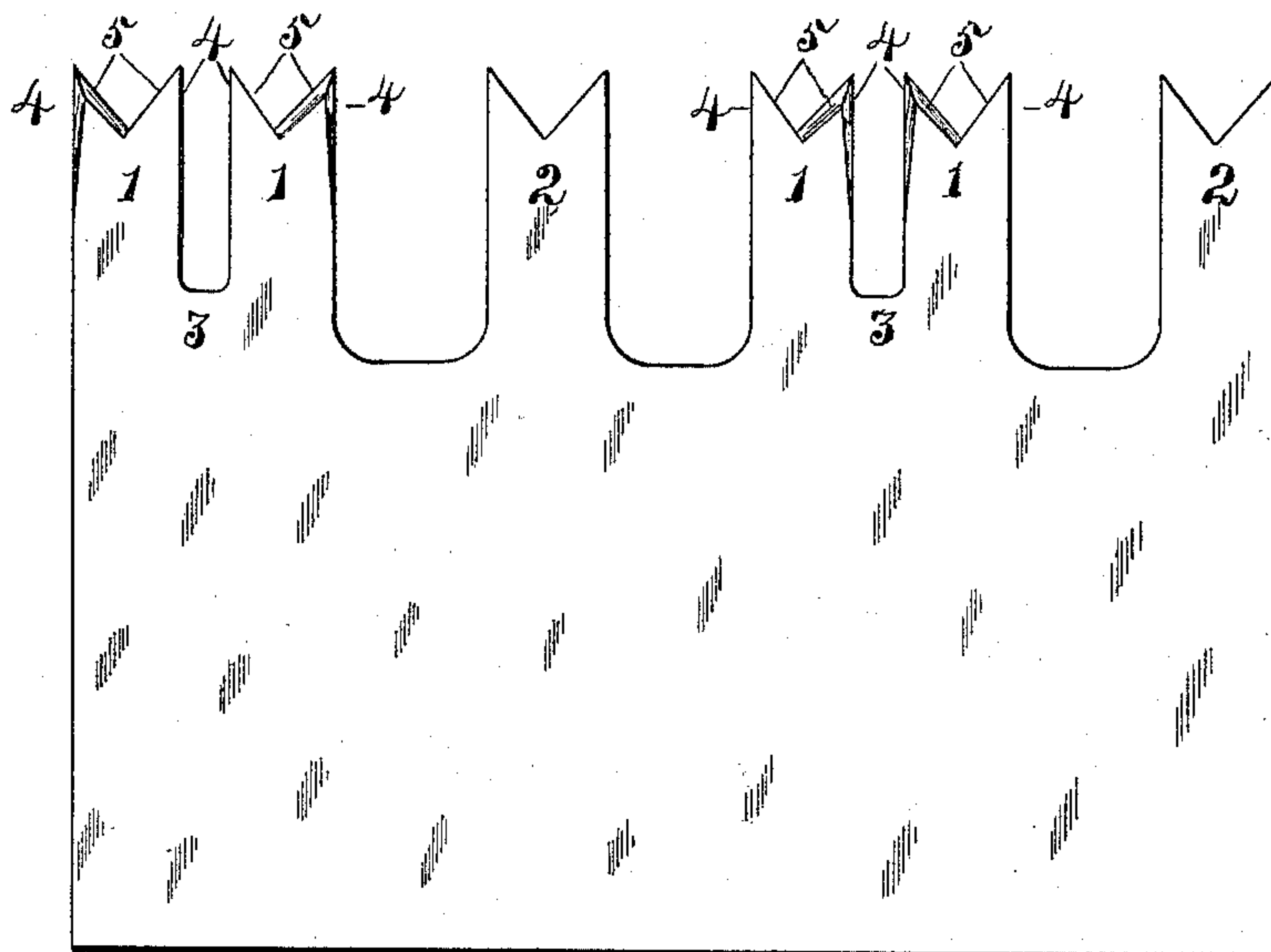


Fig. II.

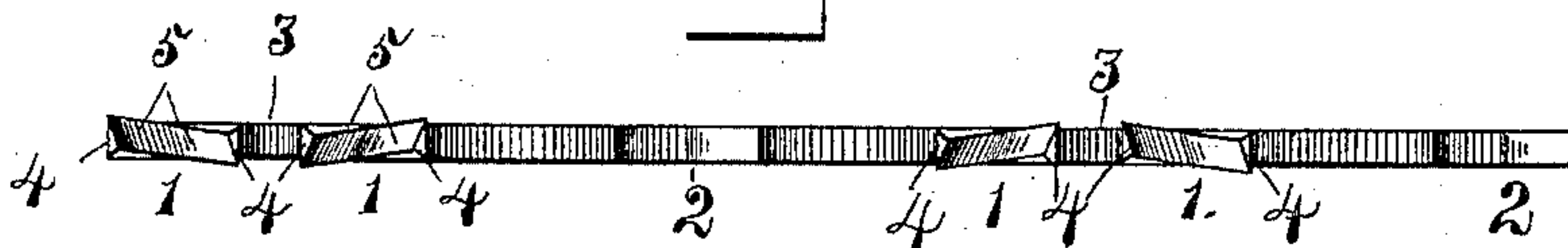
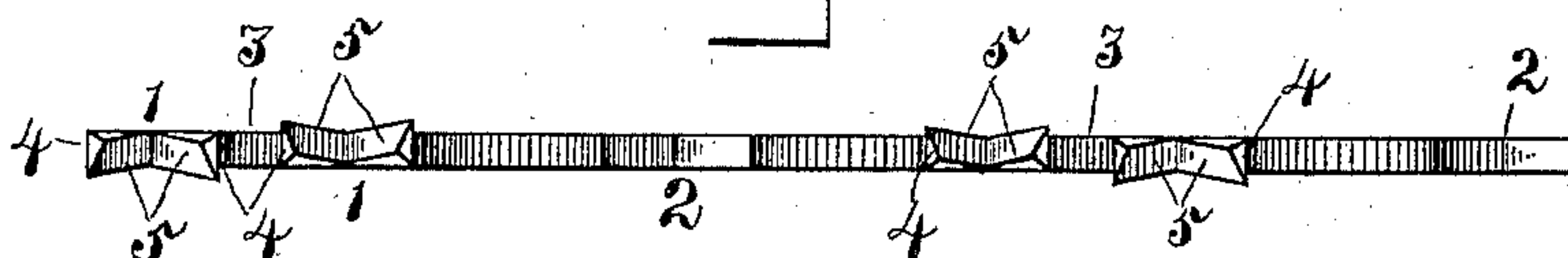


Fig. III.



Witnesses

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## SAW.

**SPECIFICATION** forming part of Letters Patent No. 424,301, dated March 25, 1890.

Application filed September 27, 1889. Serial No. 325,256. (No model.)

*To all whom it may concern:*

Be it known that I, GILBERT C. ILES, a citizen of the United States, residing at Fredericktown, county of Knox, State of Ohio, have  
5 invented certain new and useful Improvements in Saws, of which the following is a specification.

My invention relates to a new and useful improvement in crosscut-saws, which I will  
10 first describe with reference to the accompanying drawings, and I will then point out in the claim the novel features.

In said drawings, Figure I is a side view of the edge of my improved saw. Fig. II is an  
15 edge view thereof. Fig. III is a similar view of a modification.

My improved saw is made with incisor-teeth 1 and clearing-teeth 2. Between each pair of clearing-teeth 2 are arranged a pair of incisors  
20 connected by a strengthening-web 3. The incisors are of about the same shape as the clearing-teeth, but are narrower and are sharpened differently. Each tooth has two projecting points or edges. In the clearing-teeth  
25 these are sharpened to a straight edge transverse of the saw, while in the incisors they are sharpened to points and are set. There will thus be four cutting-points between each pair of clearing-teeth, and each point has one  
30 straight side 4 and one inclined side 5. The direction of sharpening is alternate on the incisors, as shown in Fig. II, where two points on the same tooth are oppositely sharpened and set, or, as shown in Fig. III, where the points  
35 of adjacent teeth are oppositely sharpened and set. Thus in either direction of motion of the saw there will be between each pair of

clearers two cutting-points in action, each having a straight side cutting against the wood. It is apparent that a point with a  
40 straight or vertical cutting edge or side will hug more closely to the wood than one with an inclined side or edge, and that thus the clearing-teeth will remove larger chips or grains of sawdust.

The teeth are of equal width from top to bottom—i. e., their sides are parallel from top to bottom—so that they are in as good shape when worn short as when new. The saw is  
45 easily sharpened with a three-cornered file. With this construction a great number of cutting-points to the foot are provided without a material loss of strength and leaving plenty of room for the sawdust. The points  
50 can be set so that in filing the teeth the file can be held with the point upward or side-  
55 wise, as desired.

Having thus described my invention, the following is what I claim as new therein and  
60 desire to secure by Letters Patent:

In a crosscut-saw, the combination of the parallel-sided clearing-teeth and parallel-sided and paired incisor-teeth between the same, having vertical outer sides extending  
65 from base to point, the incisor-teeth sharpened to points having alternate vertical and inclined edges, and the clearing-teeth sharpened to straight edges transverse to the plane of the saw, substantially as set forth.

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Witnesses:

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