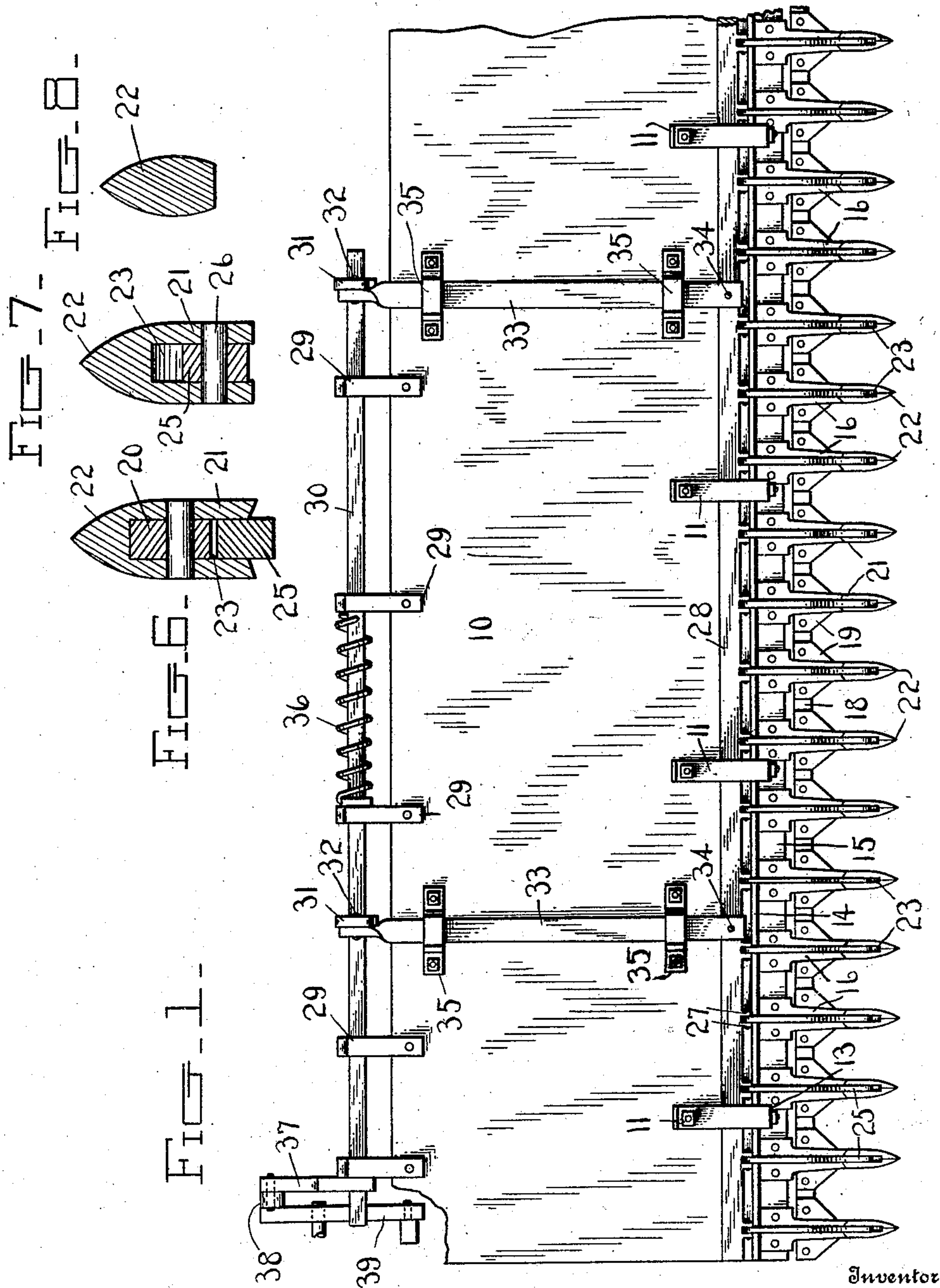


915,471.

W. J. PARROTT.
TRIP GUARD.
APPLICATION FILED FEB. 14, 1908.

Patented Mar. 16, 1909.
3 SHEETS—SHEET 1.



Witnesses

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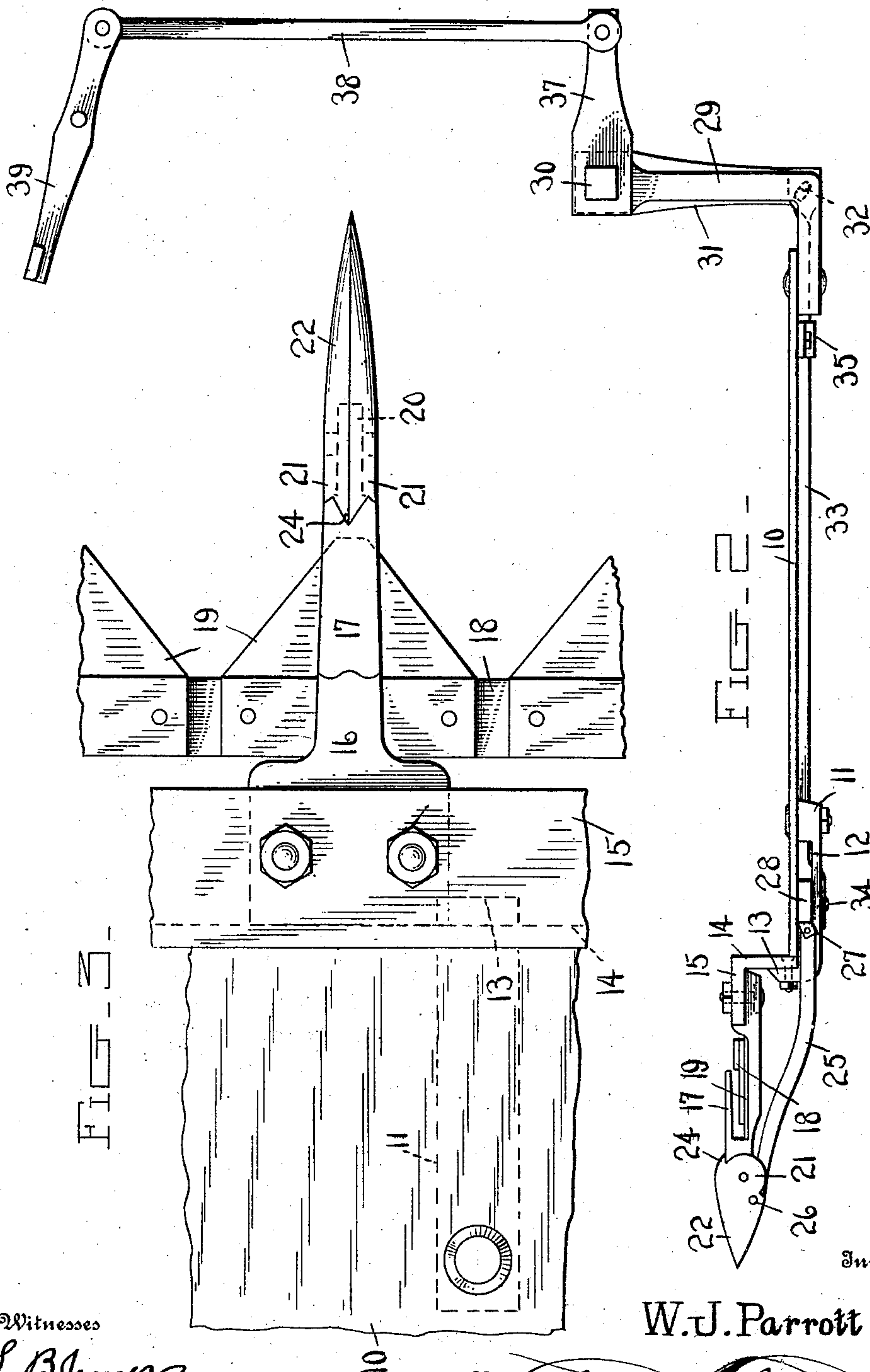
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3 SHEETS—SHEET 2.

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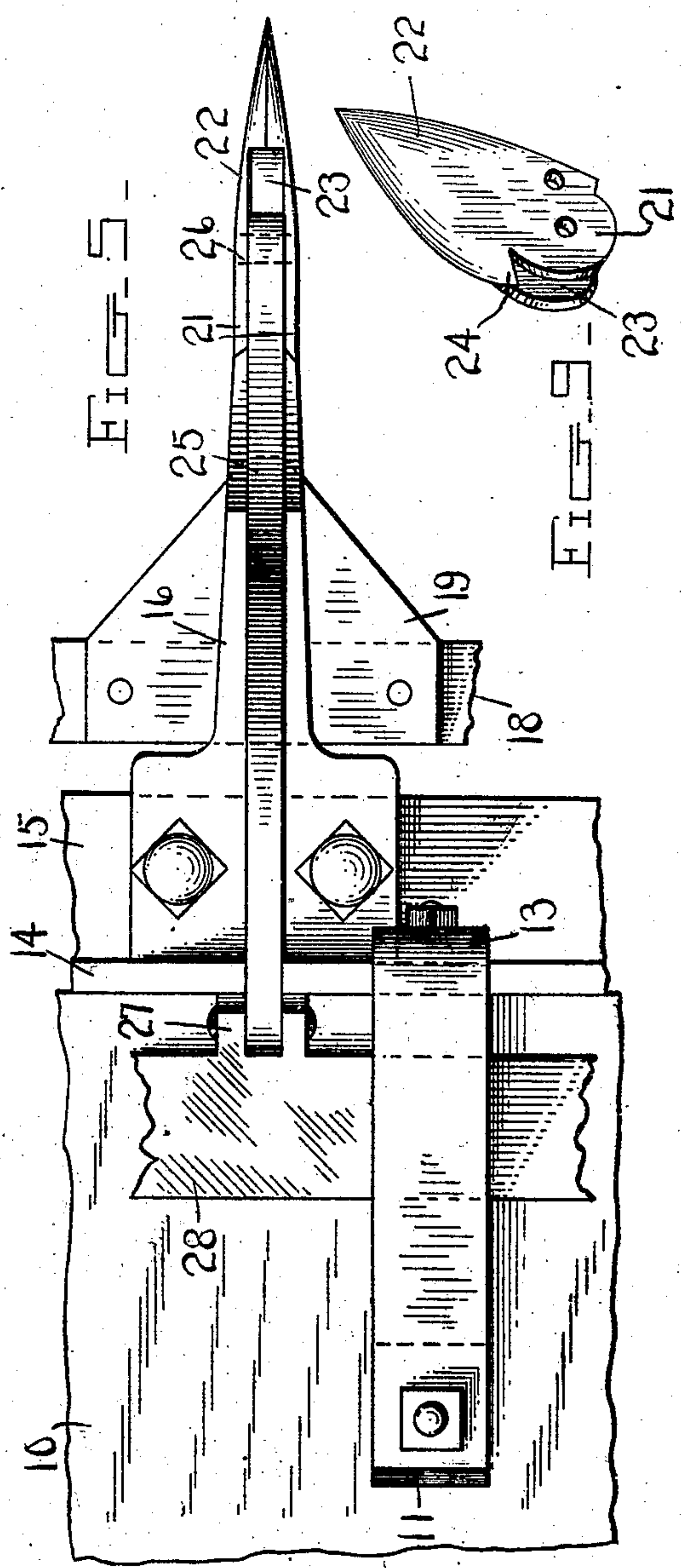
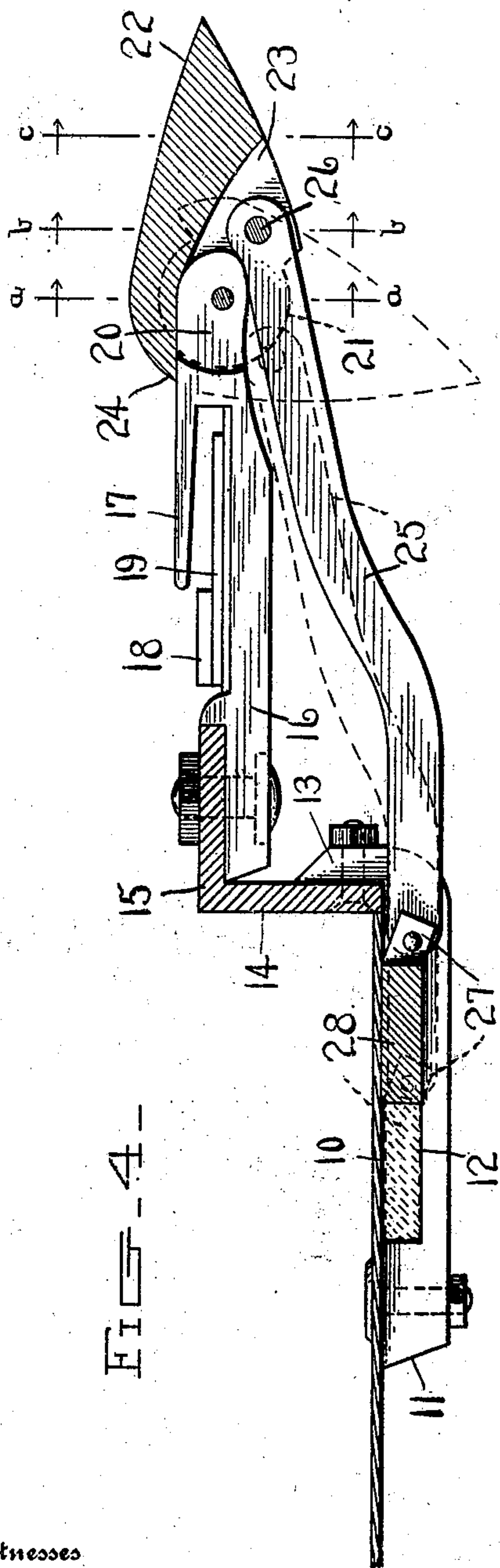
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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TRIP-GUARD.

No. 915,471.

Specification of Letters Patent.

Patented March 16, 1909.

Application filed February 14, 1908. Serial No. 415,946.

To all whom it may concern:

Be it known that I, WILLIAM J. PARROTT, a citizen of the United States, residing at St. Edward, in the county of Boone, State of Nebraska, have invented certain new and useful Improvements in Trip-Guards; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to trip guards for binders.

In cutting grain in a stubble field, it very frequently happens that old stalks are speared by the points of the guard and are carried along by the machine felling the grain in their path and preventing its being cut. In carrying out my invention I provide a guard tooth having a pivoted point and the points upon all of the guard teeth of the binder are adapted to be simultaneously rocked in a downward and rearward direction by the depression of a foot lever this being done by the operator of the binder as soon as he perceives a stalk speared upon any of the teeth. When so rocked, the points will lower the stalks into the stubble and as a consequence, the stalk is drawn off from the tooth by the resistance of the stubble, the points being returned immediately to their normal position by means of a spring.

In the accompanying drawings, Figure 1 is a top plan view of the platform of a binder showing the application of my invention, Fig. 2 is a side elevation thereof, Fig. 3 is a detail top plan view of a portion of the binder platform showing but one of the teeth, Fig. 4 is a vertical sectional view through one of the teeth and a portion of the platform showing in full lines the normal position of the point of the tooth and in dotted lines its position when moved or tripped to discharge the stalk, Fig. 5 is a fragmentary bottom plan view, Fig. 6 is a detail vertical transverse sectional view through the tooth on the line *a-a* of Fig. 4, Fig. 7 is a similar view on the line *b-b* of Fig. 4, Fig. 8 is a similar view on the line *c-c* of the same figure, and, Fig. 9 is a detail perspective view of the point of one of the teeth.

In the drawings, there is shown the platform 10 of a binder the remainder of the

machine not being shown as it relates in no way to the invention. Bolted to the under side of the platform 10 at the forward edge thereof and at the proper intervals are guide blocks 11 which have their faces which are disposed against the under side of the platform recessed as at 12 for a purpose which will presently be made apparent and these blocks are formed at their forward edges each with an upstanding projection 13 to which is bolted a plate 14 this plate being extended throughout the length of the front edge of the platform 10 and being formed with a forwardly extending horizontal flange 15 to which are bolted, at the proper intervals the guard teeth 16 of the machine. It will be well to state at this point that the guard teeth include each the usual rearwardly extending finger 17 the knife bar being indicated by the numeral 18 and having secured to it the usual blades 19 which reciprocate beneath the overhanging rearwardly extending finger 17 of their respective guard teeth.

Each of the guard teeth 16 is formed at its forward end with an ear 20 which is pivotally received between ears 21 formed by recessing the point of each tooth, these points being indicated by the numeral 22. These tooth points are of the cross sectional contour illustrated in Figs. 6, 7 and 8 of the drawings the recess in the point being indicated by the numeral 23. This recess in each tooth point is formed in the under side of the point and to the rear and its formation results in a shoulder 24 which, when the point is elevated, abuts against the upper side of the forward end of the body of the tooth and limits the pivotal movement of the point in an upward direction. It will be understood of course that the tooth point may have a downward swinging movement and in order that all of the points may be simultaneously swung in this manner, the forward end of an arm 25 is pivoted as at 26 in the recess formed in the point of each tooth this pivotal point 26 being located, when the tooth point is raised, in a plane forwardly but below the pivotal point for the point itself. These arms 25 are extended rearwardly in a downward direction from their pivots 26 and have their rear portions extended directly rearwardly in a plane parallel to the plane of the platform 10 and each arm has its rear end pivotally received between ears 27 formed upon the for-

ward edge of a retracting bar 28 which extends longitudinally beneath the platform 10 and is supported and works within the recesses 12 in the guide blocks 11.

5 Journaled in suitable bearing brackets 29 at the rear edge of the platform 10 is a rock shaft 30 which is squared and fixed upon this shaft and depending therefrom are crank arms 31 the lower ends of which are pivoted
10 by means of a sliding pivot 32, to the rear ends of bars 33 these bars being connected at their forward ends as at 34 to the retracting bar 28. The bars 33 are of course located beneath the platform 10 and they work in suitable guides 35. A spring 36 is secured at one
15 end to the rock shaft 30, upon which it is engaged, and at its other end is connected to one of the bearing brackets 29 and this spring exerts its tension in a direction to hold
20 the retracting bar 28 at the limit of its forward movement. Fixed upon the shaft 30 at its inner end is a crank arm 37 the end of which is pivotally connected to the lower end of a rod 38 this rod being connected at its up-
25 per end to one end of a rocking foot lever 39 mounted at a convenient point upon the frame of the binder.

Should it be observed, during the operation of the binder that a stalk has been speared
30 upon one of the teeth, the operator, with his foot, rocks the lever 39 and this movement results in a rearward movement of the retracting bar 28 swinging the point of the teeth downwardly as indicated in dotted
35 lines in Fig. 4 it being understood that the stubble will pull the stalk from the tooth. The foot lever is then released and the spring 36 acts to return the points to their normal position.

40 While the present invention has been shown in connection with an ordinary binder it will be understood that it may be employed

in connection with any specific implement to which it is adapted, such as a header.

What is claimed is:

1. In a mechanism of the class described, the combination with a platform, of guard teeth secured to the platform at intervals, points pivoted to the teeth on a horizontal axis, and means for rocking said points. 45 50
2. In a mechanism of the class described, the combination with a platform, of guard teeth secured to the platform at intervals, points pivoted to the teeth, and means for rocking said points downwardly. 55
3. In a mechanism of the class described, the combination with a platform, of guard teeth secured to the platform at intervals, points pivoted to the teeth, and means for rocking said points, each of said points being
60 formed with a shoulder which coöperates with the body of the tooth to limit the upward movement of the point.
4. In a mechanism of the class described, the combination with a platform, of guard
65 teeth secured to the platform at intervals, points pivoted to the teeth, means for rocking said points including a retracting bar mounted for backward and forward move-
70 ment beneath the platform, and connection between the bar and each of the points.
5. In a mechanism of the class described, the combination with a platform, of guard
75 teeth secured to the platform at intervals, points pivoted to the teeth on a horizontal axis, and means for simultaneously rocking said points.

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

WILLIAM J. PARROTT.

Witnesses:

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C. E. NELSON.