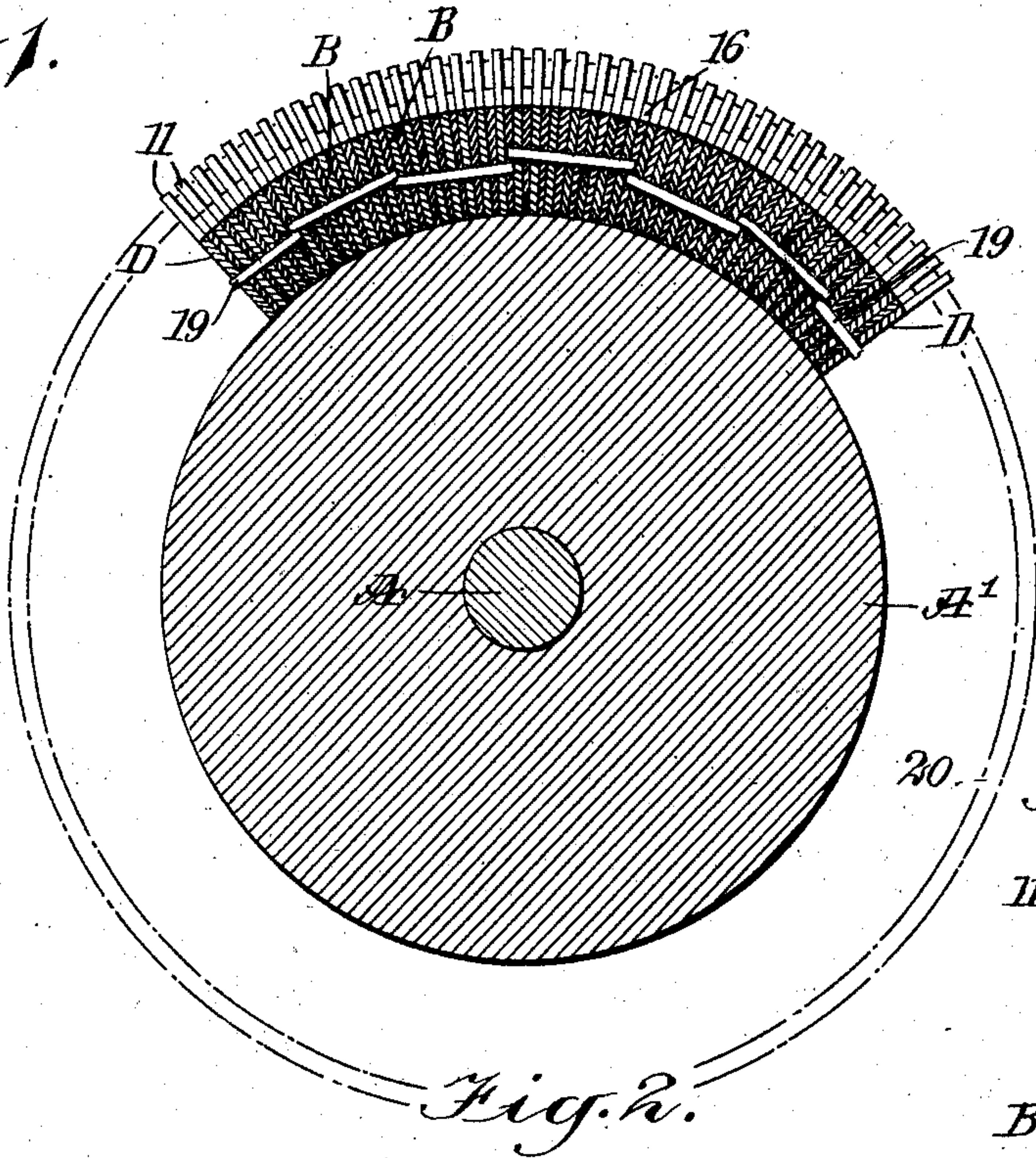


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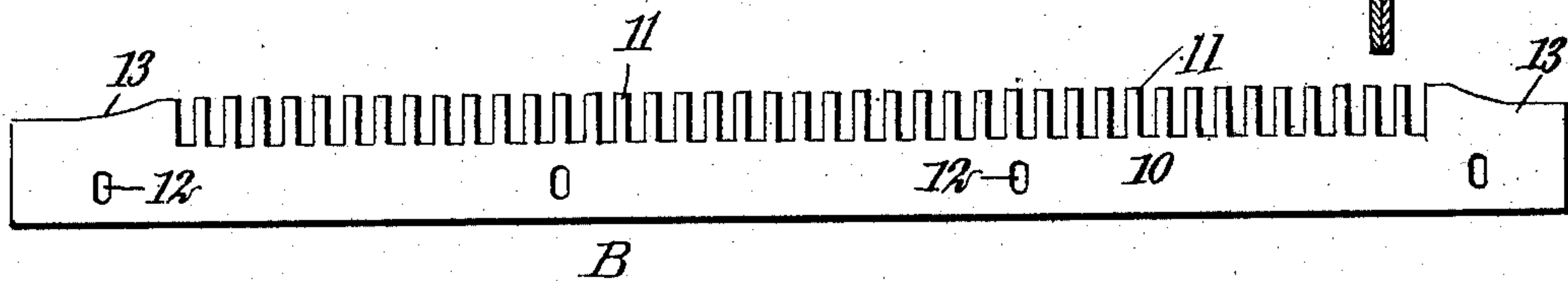
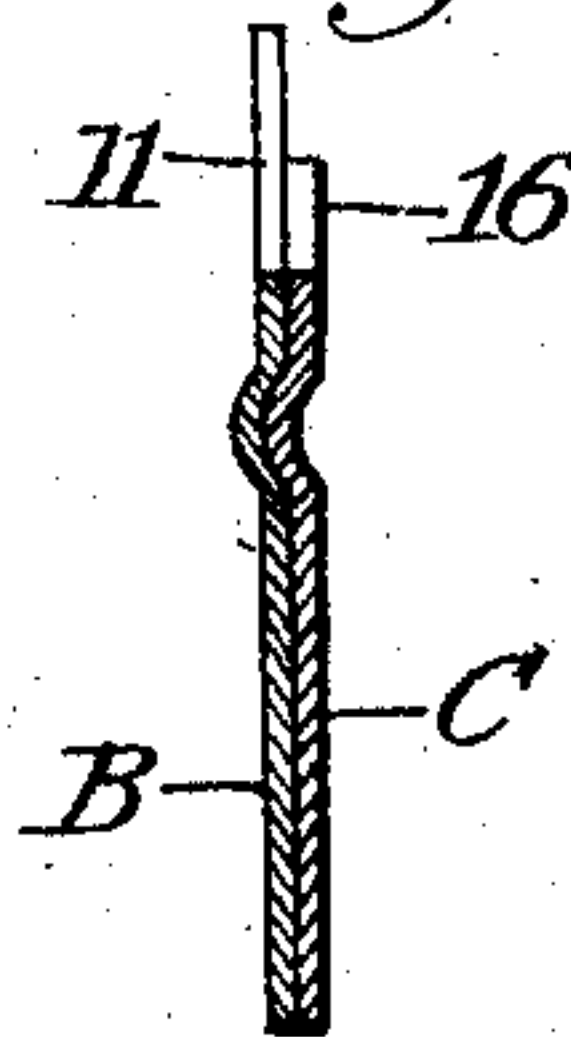
PATENTED SEPT. 3, 1907.

E. L. CHADDOCK.  
IMPALING ROLL FOR RAISIN SEEDERS.  
APPLICATION FILED FEB. 18, 1907.

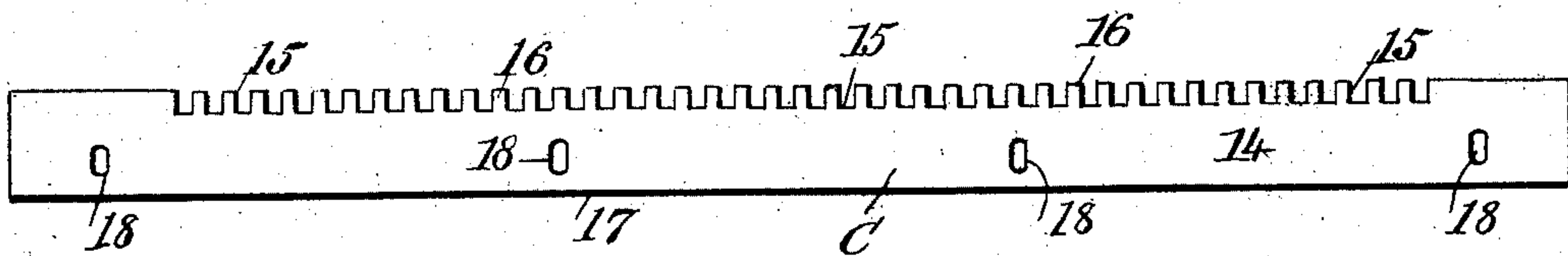
*Fig. 1.*



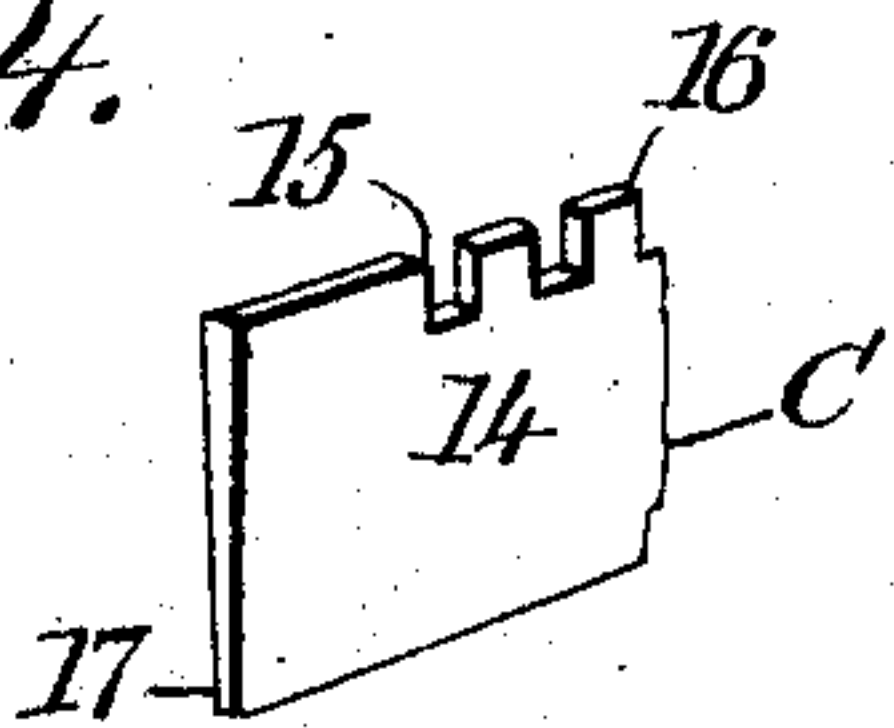
*Fig. 6.*



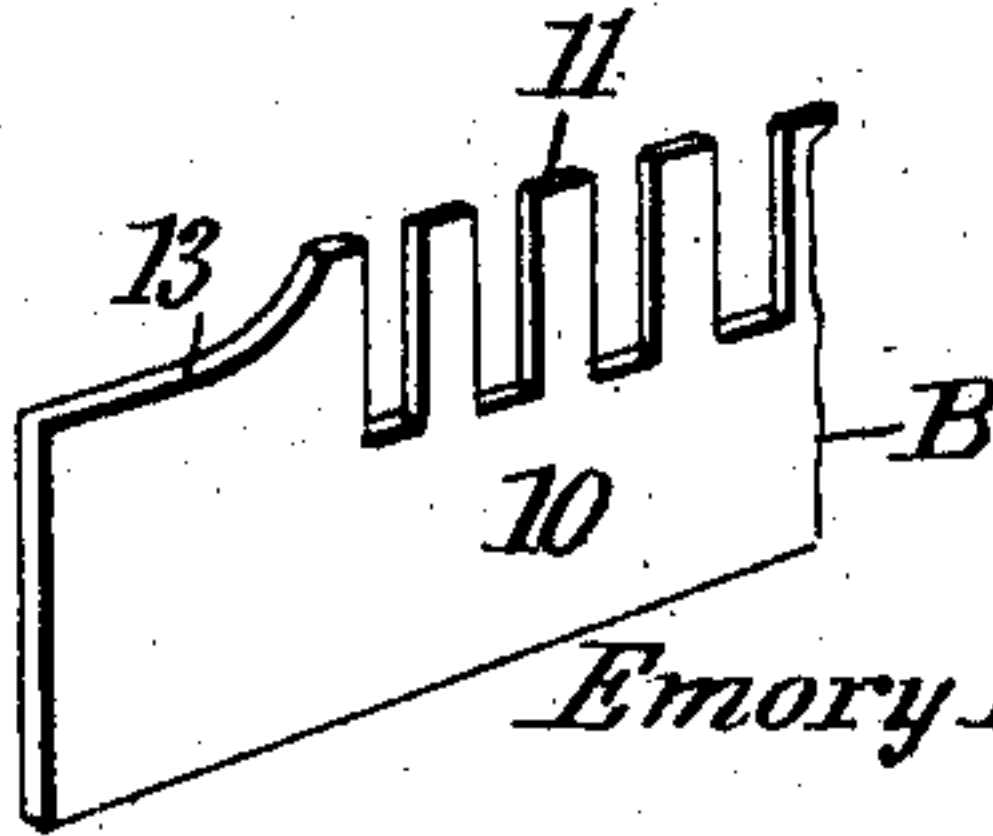
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



WITNESSES

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# UNITED STATES PATENT OFFICE.

EMORY LEROY CHADDOCK, OF FRESNO, CALIFORNIA.

## IMPALING-ROLL FOR RAISIN-SEEDERS.

No. 865,236.

Specification of Letters Patent.

Patented Sept. 3, 1907.

Application filed February 18, 1907. Serial No. 357,928.

*To all whom it may concern:*

Be it known that I, EMORY LEROY CHADDOCK, a citizen of the United States, and a resident of Fresno, in the county of Fresno and State of California, have  
5 invented a new and useful Improvement in Impaling-Rolls for Raisin-Seeders, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide an impaling roll for raisin seeders and like machines, that  
10 may be made of suitable length and yet possess a maximum degree of rigidity throughout, and firm, immovable seats for the impaling saws or combs and their spacing elements.

It is also a purpose of the invention to provide means  
15 for strengthening the teeth of the combs or saws, thus adding materially to their lifetime, and to accomplish such results through the medium of the spacing elements employed.

Another purpose of the invention is to arrange the  
20 saws or combs in sets of any desired number so that should the teeth of any one or more of the saws or combs in a set become damaged, that particular set only need be removed and replaced, thus avoiding the usual tiresome work in such circumstances, of  
25 dismantling the entire roll.

It is another purpose of the invention to provide a construction of impaling roll wherein the saws or combs extend lengthwise thereof.

The invention consists in the novel construction  
30 and combination of the several parts as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts  
35 in all the figures.

Figure 1 is a transverse section through the shaft and core of a roll, and through several groups of saws or combs and through spacing elements in position on the core; Fig. 2 is a side elevation of one of the combs  
40 or saws; Fig. 3 is a side elevation of one of the spacing elements; Fig. 4 is a perspective view of one end portion of a spacing element; Fig. 5 is a perspective view of one end portion of a saw or comb; and Fig. 6 is a transverse section through an impaling plate and a  
45 spacing element, illustrating the two factors provided with engaging corrugated surfaces.

A represents the shaft of a roll and A' the core therefor, which core may be solid as is shown, or may be of tubular construction.

50 B represents one of the saws or combs employed, upon which the raisins in being seeded are impaled, and C represents a spacing element or spacer for the combs or saws.

The saws or combs B are of the same construction  
55 and consist of a plate 10 of steel, preferably rather thin and of predetermined width, and between the

ends of a plate 10 at its upper edge a series of impaling teeth 11 is formed, preferably at equal distances apart, and in the body or plain portion of a plate 10, slots 12 are produced in any desired number, which slots  
60 are transversely located.

Each spacing element C is of the same length as a tooth or comb B, and its body portion 14 is provided at its upper edge with a series of recesses 15 divided by teeth 16, the recesses 15 in a spacing element C corresponding in number to the number of spaces between the teeth 11 of a comb or saw B, and the teeth 16 of a spacing element likewise corresponding in number and position to the teeth on the saws or combs. The teeth 16 of the spacing elements C are shorter than  
70 those of the saws or combs B, and furthermore the spacing elements C are given a tapering form, being narrowest at their lower edges 17, and each spacing element C is provided with elongated transverse slots 18, which slots correspond in number and position to the  
75 slots 12 in the combs or saws B. The end portions of the combs or saws B at their upper edges are provided with inclined or concaved surfaces 13, as is best shown in Fig. 2. These saws and accompanying spacing elements are grouped in series and each series may consist of any desired number of set factors. The spacing  
80 element intervening between opposing saws or combs and each series D of alternately arranged combs and spacing elements, is bound together by pins 19 or their equivalents, passed through the slots 12 and 18 formed  
85 respectively in the combs and spacing elements, and the pins of one series are preferably made to overlap the pins of the next series, as is shown in Fig. 1, but I desire it to be understood that I do not confine myself to this particular way of holding together a series of saws  
90 and spacing elements.

The groups or series D of combined combs and spacing elements are arranged along the periphery of the core A' to completely conceal and cover the core, and the saws and spacing elements extend from end to end  
95 of the core longitudinally thereof. The tapering form of the spacing elements C enables the series or groups of saws and spacing elements to assume the radial position shown in the drawings. After all of the groups or series D have been properly assembled, they are held  
100 in position by slipping bands 20 over the inclined or concaved outer end edges 13 of the saws or combs. When the spacing elements are in position their teeth 16 engage or bear against a base portion of the teeth 11 of the saws or combs, in fact they reinforce the teeth of the  
105 saws or combs and thus materially strengthen the same and brace said teeth circumferentially. The recesses 15 in the spacing elements C enable the strippers employed to readily get under the fruit.

The operation of this roll is the same as that of other  
110 impaling rolls; namely, the raisins are forced upon the tooth 11 into the recesses between the teeth, the seed



from the raisin remaining at the point of the teeth. The seeds are removed in any suitable or approved manner and the stripping is likewise accomplished in the customary manner.

- 5 While the plates 10 and spacing elements C may be made plain or flat, they may also be made with corrugations as is shown in Fig. 6, whereby when fitted together, the convex surface of a plate 10 will fit in a concave surface of a spacing element C.
- 10 Having thus described my invention, I claim as new and desire to secure by Letters Patent,—
1. An impaling roll for raisin seeders, comprising a core, a series of longitudinally arranged combs, each comprising a plate of thin material provided upon one edge with a
- 15 series of impaling teeth, and a series of spacing elements intermediate the combs, each of said elements comprising a plate provided upon one edge with teeth, the teeth of the spacing elements being of lesser length than the teeth of the combs and registering therewith, said last named plate
- 20 being wedge shape for the purpose set forth, all of said plates being provided with transverse slots, and pins pass-

ing through the slots, the ends of said first named series of plates being reduced in width to equal the width of the second named series, and bands engaging the ends of all the plates to retain them on the roll.

2. In an impaling roller for raisin seeders and similar machines, a saw or comb, a spacing element for the same, the spacing element being provided with teeth registering with those of the saw or comb and of lesser length, and adapted for engagement with the base portion of the

3. In an impaling roll, saws or combs, wedge-shaped spacing elements located between opposing saws or combs, the spacing elements being narrower than the saws or combs and provided with teeth registering with those of the saws or combs and of lesser length and adapted for

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EMORY LEROY CHADDOCK.

Witnesses:

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EFFIE J. ALSIP.