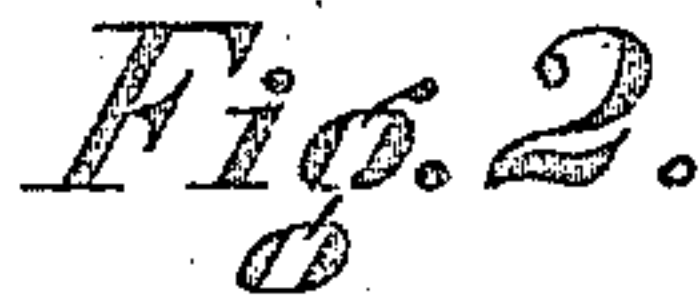


RAISIN SEEDER.

Patented Mar. 15, 1910.

2 SHEETS—SHEET 1.

951,897.



INVENTOR.

WITNESSES.

Arthur L. Slee.
S. Constance.

William C. Anderson
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W. C. ANDERSON.

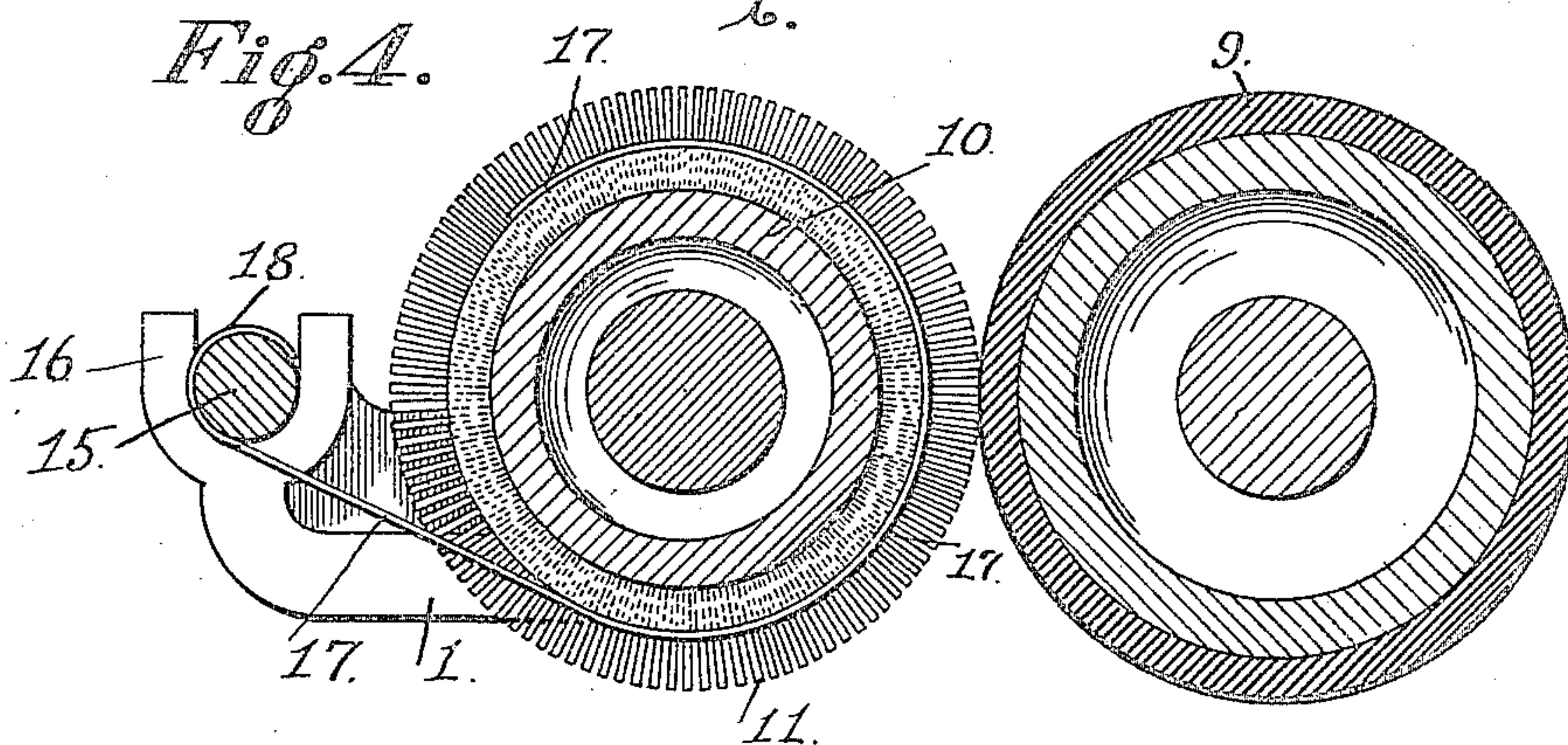
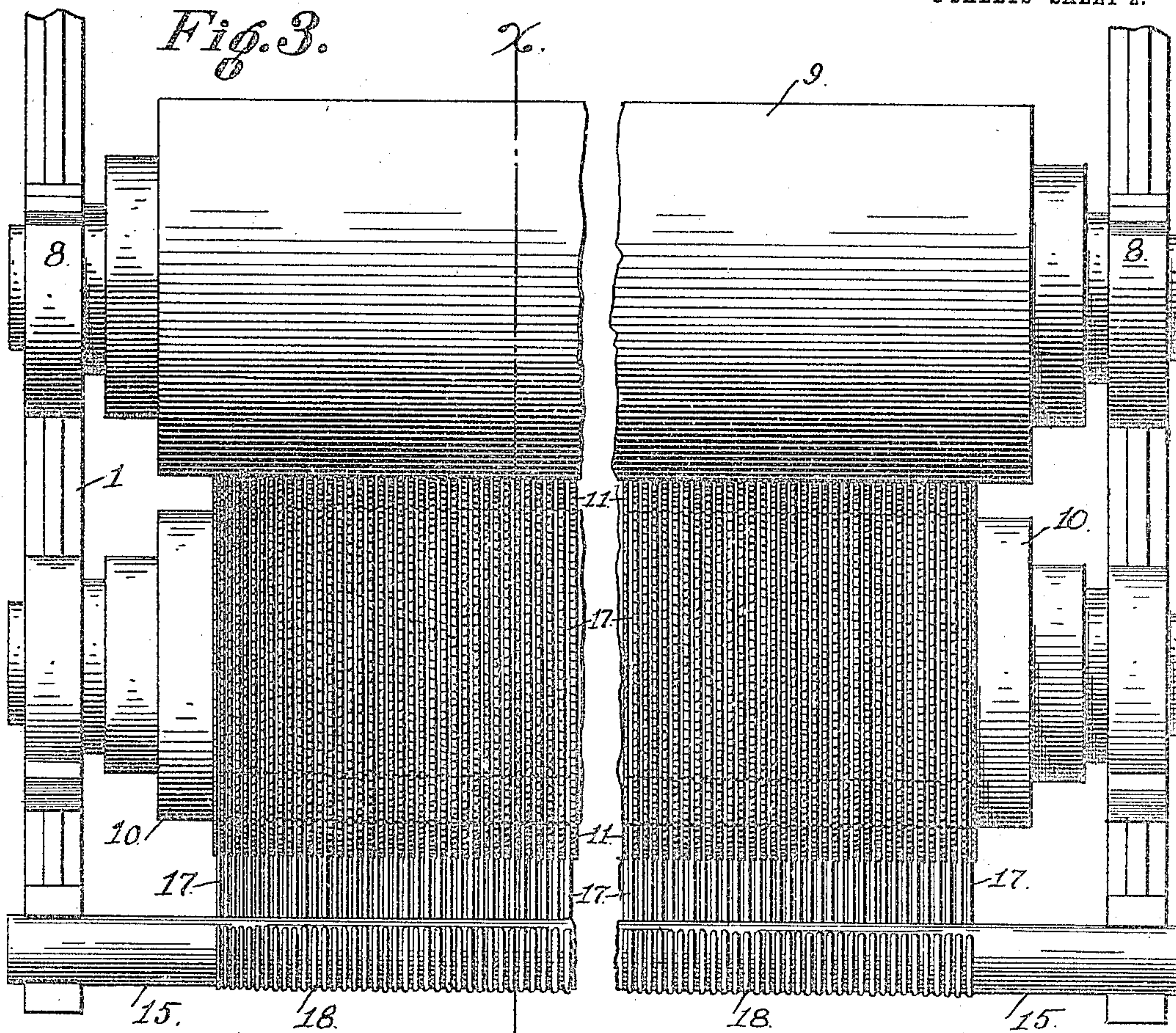
RAISIN SEEDER.

APPLICATION FILED MAR. 22, 1909.

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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RAISIN-SEEDER.

951,897.

Specification of Letters Patent.

Patented Mar. 15, 1910.

Application filed March 22, 1909. Serial No. 484,856.

To all whom it may concern:

Be it known that I, WILLIAM C. ANDERSON, a citizen of the United States, residing at San Jose, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Raisin-Seeder, of which the following is a specification.

My invention relates to that class of raisin-seeders in which an impaling cylinder provided with spaced circumferential rows of teeth or pins is employed in conjunction with an opposing pressure roll, a seed-removing device to take the seeds from the points of the teeth or pins, and pulp-strippers operating in the spaces between the circumferential rows to remove the pulp or meat of the raisins impaled upon the teeth or pins.

The improvement or feature of my invention consists in the novel construction and arrangement of the pulp-strippers which I shall hereinafter fully describe and set forth in the claims.

Concerning pulp-strippers, it may be said that the most usual type of these found in the practical art consists of a series of fingers, independently pivoted at one end upon a fixed rod, their other ends entering the spaces between the rows of teeth of the impaling cylinder, and resting upon the bottom or floor of said spaces, said fingers substantially filling in width the spaces, so that as the cylinder rotates toward them, they force the raisins off the teeth and scrape out all pulp and gum from the bottoms and sides of the spaces. As the rotation of the cylinder is toward the points of the fingers, they must be so mounted as to yield to unexpected resistance, and as they substantially fill the spaces, the latter must be made very uniform and smooth, a result which can be approximated in the common types of built-up cylinders made of a series of alternating disks of two diameters, those of larger diameter having their peripheries formed with teeth and those of smaller diameter having their peripheries smooth. But with other types of impaling cylinders in which inserted teeth or pins are employed, the problem of providing very accurate spaces or grooves between the pin-rows is a

more difficult one, and can only be approximated by more delicate and expensive constructions.

Another type of pulp-stripper has heretofore been suggested which possesses features well adapting it for use with any of the forms of impaling cylinders. This type is a wire, independent of the cylinder, which lies in the bottom of the space or groove between the pin-rows, said wire entering the groove tangentially in advance of the line of raisin-feed, and emerging therefrom tangentially at a point beyond the seed-removing device. At the emergence point the pulp is, of course, forced out. Such a pulp-stripper has many advantages, unnecessary for me to point out in detail. But to reach its highest efficiency it should also possess simplicity of construction; accuracy of position; ability to maintain such position; should present no interference to the rotation of the impaling cylinder; and, finally, should be capable of being easily put in place, and of being removed when necessary.

These are the objects of my invention, and are the results which flow from my improvement in pulp-strippers of this wire-type.

Referring to the accompanying drawings:—Figure 1 is a side elevation of a raisin-seeder containing my improvement. Fig. 2, front view, enlarged and broken, of the impaling cylinder, showing the application thereto of the pulp-strippers. Fig. 3 is a top view of the same, and of the opposing pressure roll. Fig. 4 is a cross section on line $x-x$ of Fig. 3.

Referring to Fig. 1, 1 is the frame of the machine, from which rises a bracket 2, which carries a top bar 3, from which is hung by the links 4, the feed-shaker 5, which is operated by the crank shaft 6 and connecting rod 7. In the frame 1, is mounted, in adjustable boxes 8, the pressure roll 9 of suitable type, usually one with a yielding surface. In the frame, in front of the pressure roll, is also mounted the impaling cylinder 10, to which rotation is imparted by suitable means. This impaling roll may be of any suitable type, provided with radially projecting teeth or pins 11 arranged in spaced circumferential rows, thus leaving

circumferential grooves between them. The pins or teeth are, as usual set so close together as to exclude from between them, the seeds of the raisins. The feed-shaker 5 delivers to a hopper 12, which directs the raisins to the space between the converging surfaces of the impaling cylinder and pressure roll. In the frame 1, below the impaling cylinder, is mounted the seed-re-
 10 mover, which in this case is illustrated as a blade 13, the upper end of which is in such proximity to the teeth of the cylinder, as to knock off the seeds clinging to the points of the teeth. Across the front of frame 1 is
 15 mounted a rod 15, in any suitable manner, here shown as resting in yokes 16 of the frame.

17 are the pulp-strippers. These are spring wires. They are sprung into the in-
 20 terdental circumferential grooves of the impaling cylinder, their inner ends lying free and snug, and without other connection than the pressure which their own resiliency affords. They begin in the grooves at a
 25 point sufficiently in advance of the line of raisin feed from the hopper 12 to insure the maintenance of their position, and thence extend around the back of the cylinder lying close in the groove bottoms, and around the
 30 lower arc of the cylinder to a point well past the seed-flicking blade 13; thence they emerge tangentially, and are secured at their outer ends to the frame rod 15. The form of connection with the rod may be of any
 35 suitable character; but the best form is to spring them over the rod by means of terminal hooks 18. The pulp-strippers may be readily removed or replaced by springing them off or on the cylinder and rod. By
 40 making these strippers of spring-wire, their inner ends need no fastenings, nor are they required to both enter and leave the grooves at a tangent as would be the case if their inner ends were fastened to the frame as
 45 well as their outer ends, a construction which would cause them to act, more or less, as an impeding brake to the rotation of the cylinder. But by springing them in as described, their inner ends lie fully in the
 50 groove, and are held by their resiliency, while the whole stripper is held securely in place, not only by its springiness, but by the pressure of the pulp upon it, and by the resistance to thrust which its fastening at
 55 its outer end to the rod 15 affords. At the same time its resistance to cylinder rotation is negligible.

The seed-flicking blade 13 is mounted so that it can be vertically adjusted to
 60 proper position with relation to the points of the cylinder teeth. This is done by fitting its ends in slots 19 in the frame sides, supporting them on adjusting screws 20 and

setting them by steadying side-screws 21. It is important that this adjustment of the
 65 seed-flicking blade be made with accuracy, and that its position be known at all times, for if set too high it will strip the cylinder teeth, and if set too low many seeds will be mixed with the raisins. Ordinarily, the seed-
 70 flicking blade is not exposed to convenient sight. It can only be set from an inconvenient, imperfect and partially lighted view, which results in too frequent reliance on
 75 guesswork. To avoid this I make a sight opening 22 at the top of the slot 19, one in each side of the frame 1, opposite the end of the blade, so that the relation of the working
 80 edge of the blade to the points of the cylinder teeth can readily be determined and maintained at all times.

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

1. In a raisin-seeder, the combination
 85 of a rotatable impaling cylinder provided with spaced circumferential rows of teeth; an opposing pressure roll; a seed-removing device at a point beyond the divergence of the cylinder from the roll; a series of pulp-
 90 strippers consisting of independent spring wires, having their inner ends lying resiliently in the bottoms of the circumferential interdental spaces of the impaling cylinder at a point in advance of the convergence of
 95 the surfaces of the cylinder and roll, thence extending and lying resiliently in the bottoms of said spaces to a point beyond the seed-removing device, and thence emerging tangentially from said spaces; and a fixed
 100 bearing for the outer ends of said wires.

2. In a raisin-seeder, the combination of a rotatable impaling cylinder provided with spaced circumferential rows of teeth; an
 105 opposing pressure roll; a seed-removing device at a point beyond the divergence of the cylinder from the roll; a series of pulp-strippers consisting of independent spring wires, having their inner ends lying resiliently in the bottoms of the circumferential
 110 interdental spaces of the impaling cylinder at a point in advance of the convergence of the surfaces of the cylinder and roll, thence extending and lying resiliently in the bottoms of said spaces to a point beyond the
 115 seed-removing device, and thence emerging tangentially from said spaces, said wires having their outer ends formed with hooks; and a fixed rod over which said hooks of the wires are sprung.
 120

3. In a raisin-seeder, the combination of a rotatable impaling cylinder provided with spaced circumferential rows of teeth; pulp-
 125 strippers consisting of independent spring wires each having its inner extremity lying resiliently in the bottom of the top portion

of a circumferential interdental space of the cylinder, said wire thence extending and lying resiliently in the bottom of the descending and lower portion of said space, and
5 thence emerging from said lower portion tangentially; and a fixed bearing for the outer ends of said wires.

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

WILLIAM C. ANDERSON.

Witnesses:

WM. F. BOOTH,
D. B. RICHARDS.