Sept. 3, 1935. O. L. HOSTETTER 2,013,409

POTATO DIGGING AND SORTING MACHINE

Filed Sept. 12, 1933 4 Sheets-Sheet 1

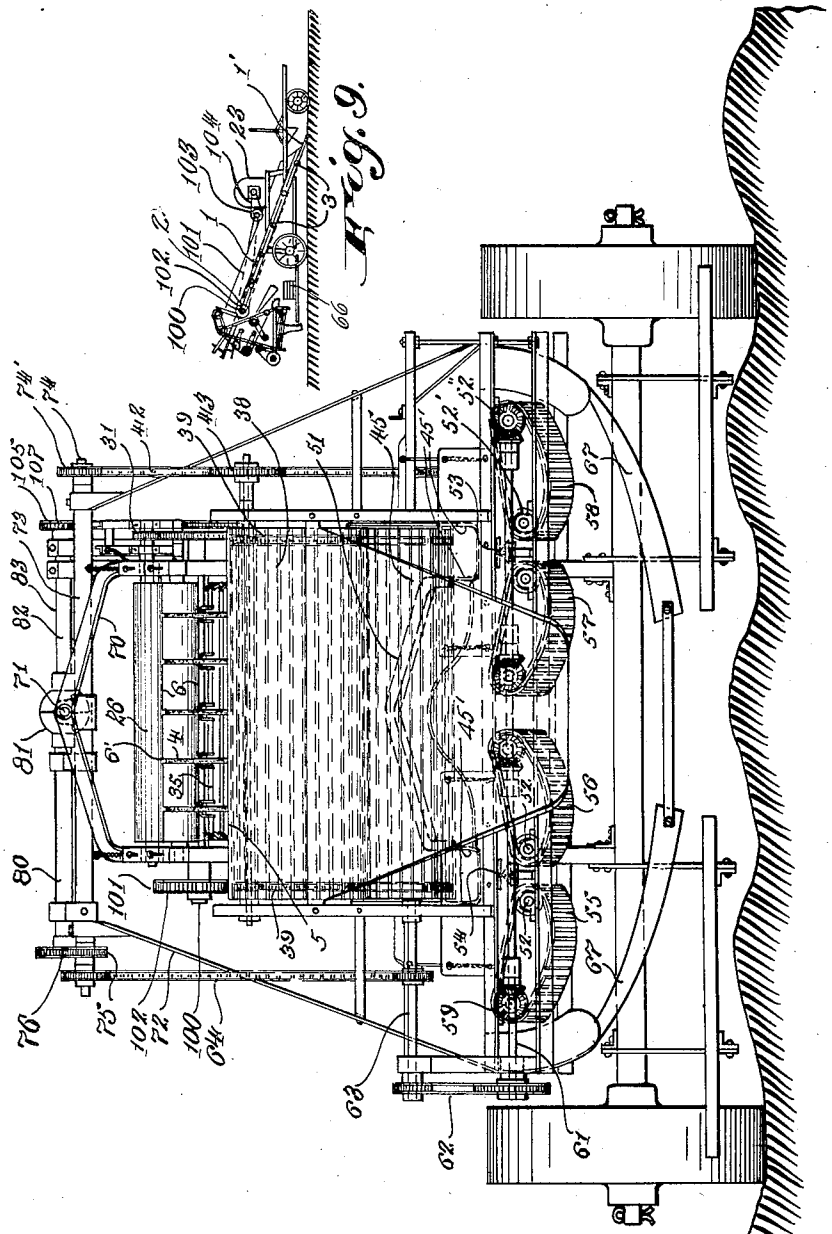


Fig. 1.

Fig. 9.

Witness:

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POTATO DIGGING AND SORTING MACHINE

Filed Sept. 12, 1933 4 Sheets-Sheet 2

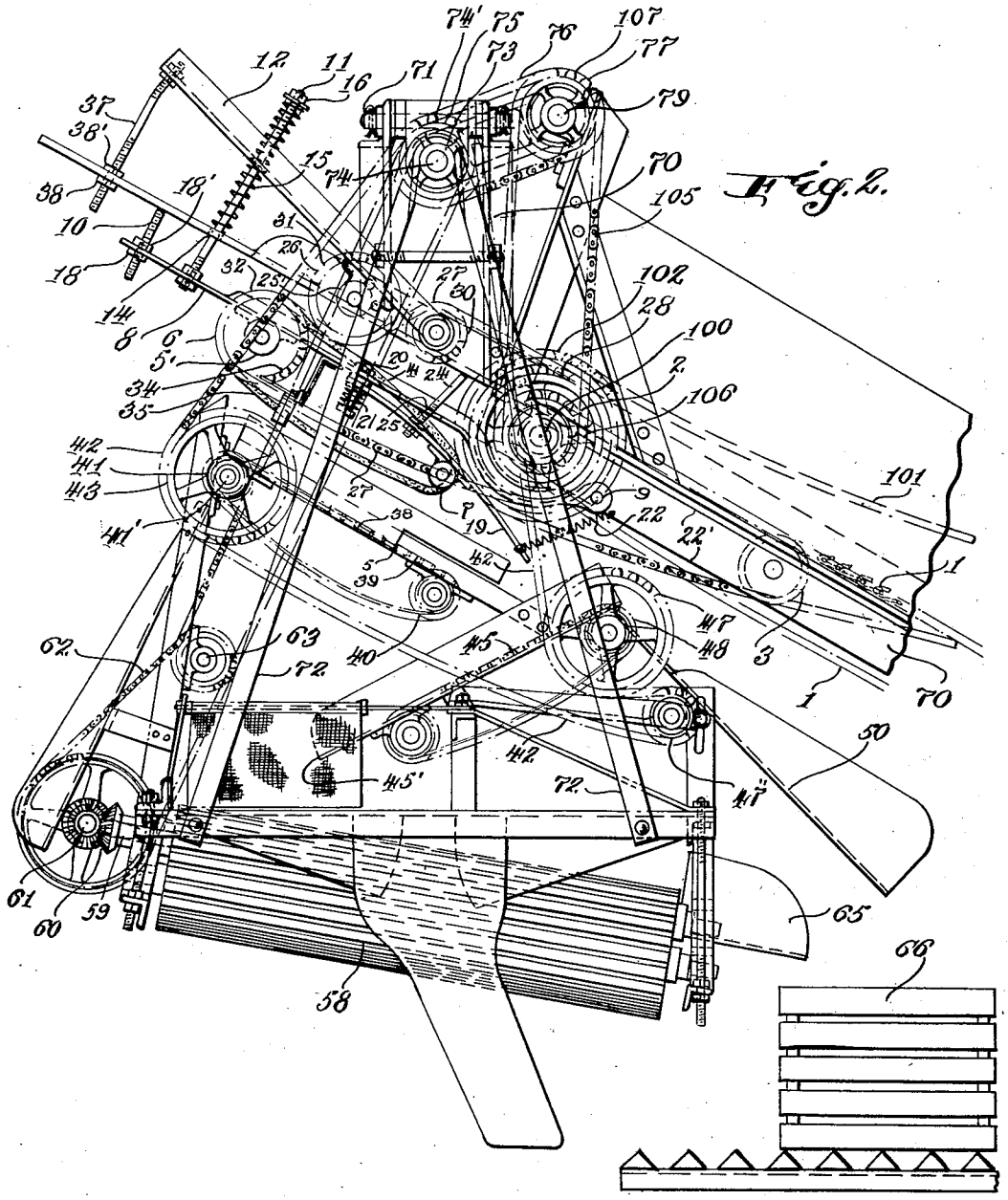


Fig. 2.

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POTATO DIGGING AND SORTING MACHINE

Filed Sept. 12, 1933 4 Sheets-Sheet 3

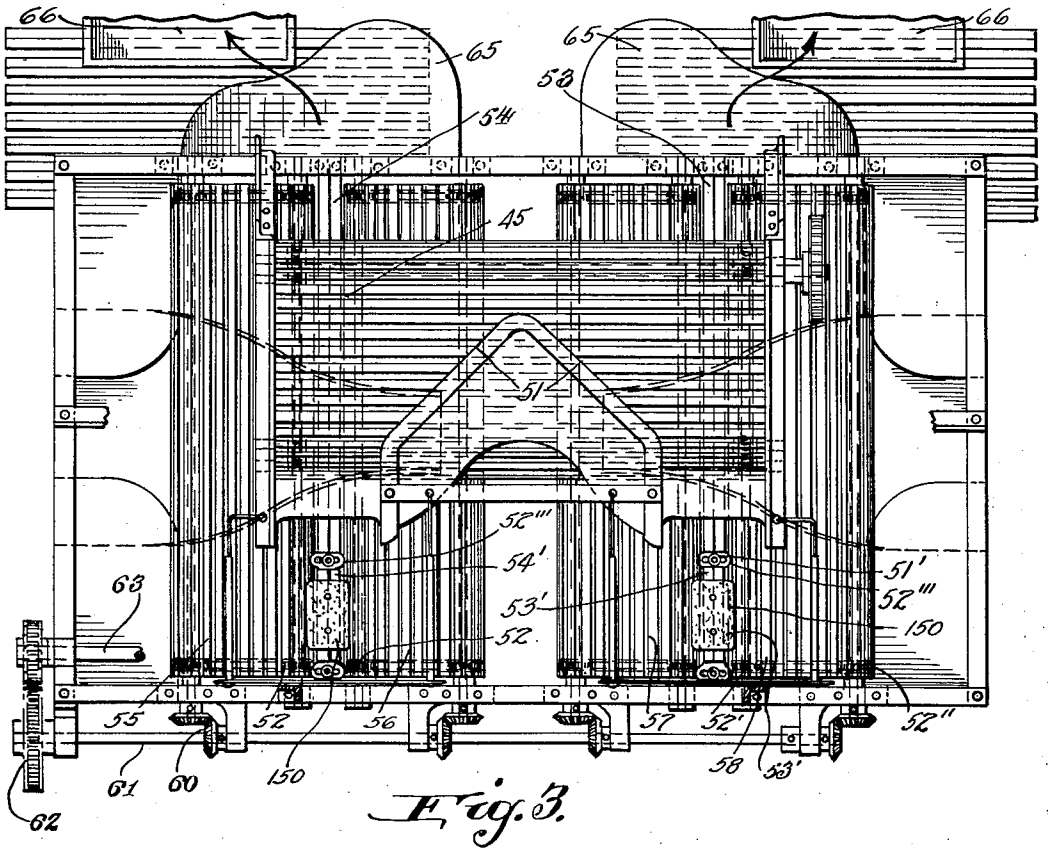


Fig. 3.

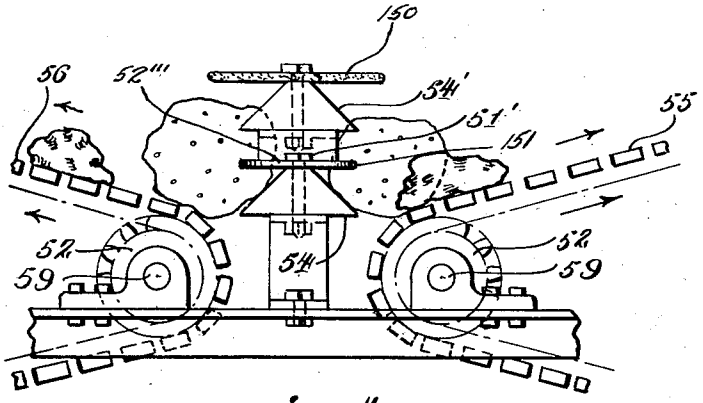


Fig. 4.

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POTATO DIGGING AND SORTING MACHINE

Filed Sept. 12, 1933 4 Sheets-Sheet 4

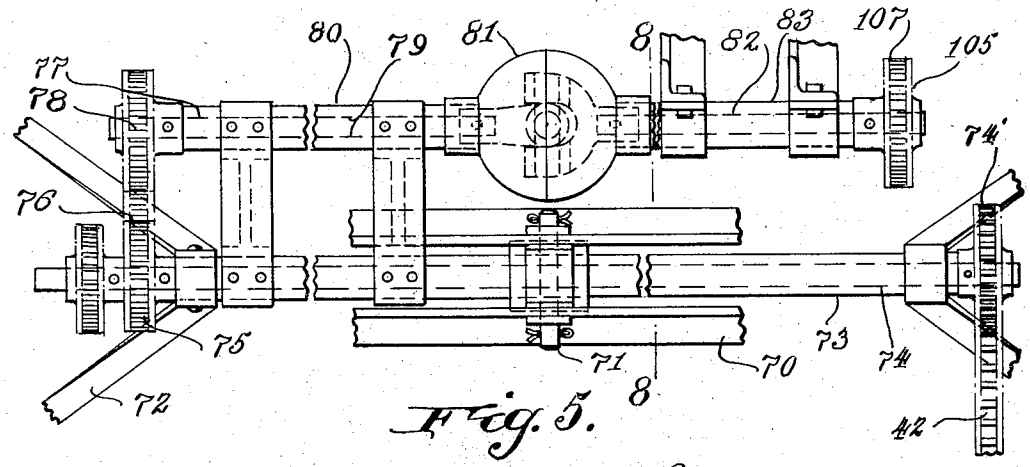


Fig. 5.

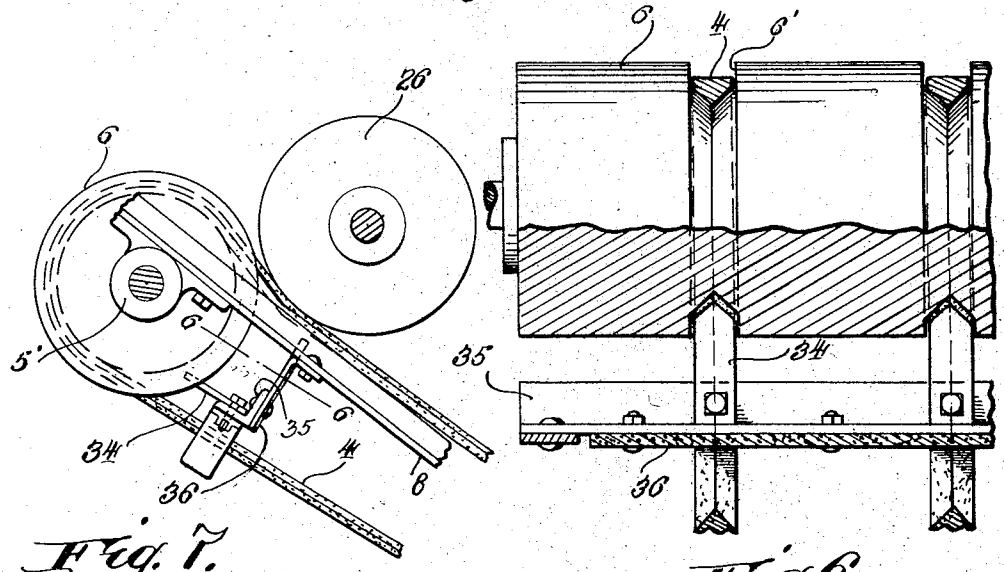


Fig. 7.

Fig. 6.

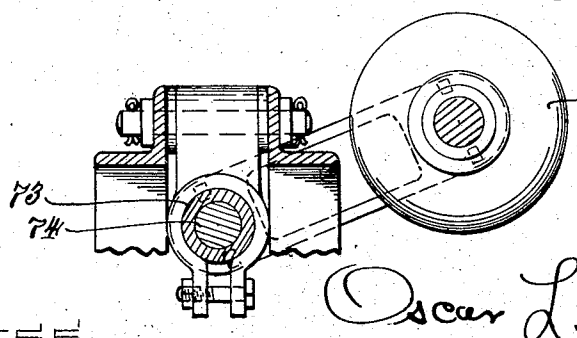


Fig. 8.

Witness

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Patented Sept. 3, 1935

2,013,409

UNITED STATES PATENT OFFICE

2,013,409

POTATO DIGGING AND SORTING MACHINE

Oscar L. Hostetter, Adams County, Pa.

Application September 12, 1933, Serial No. 689,068

15 Claims. (Cl. 55—51)

The invention relates to a potato digger and particularly to apparatus for removing the potatoes from the vines and separating them therefrom and from the stones and other débris which is raised by the digger with the potatoes.

A further important feature of the invention, in addition to the separation of the potatoes from the vines and from the stones and the separate discard of the vines and the returning of the stones and other débris to the area between the furrows, is a device whereby the sorting elements of the machine which are dependent upon gravity to carry the potatoes in one direction and the stones in the other whereby they are separated are automatically levelled so that without regard to the angle of the surface on which the machine is running which may be either on a level stretch or on a hillside which is encountered either laterally or in the direction of motion of the machine, the sorting elements are kept at a constant angle to the vertical so that the separating process is in no wise interfered with by the change of angle of the machine due to the contour of the ground.

In the accompanying drawings I have illustrated a machine embodying the features of the invention in the preferred form.

In the drawings:

Figure 1 is a rear elevation of the machine.

Figure 2 is a fragmentary side elevation of the separating and sorting mechanism looking from the right in Figure 1, illustrating the operation of the separating and sorting mechanism in a general way.

Figure 3 is a top plan of the cradle or swinging portion of the machine and the mechanism carried thereby.

Figure 4 is a fragmentary elevation looking rearwardly showing the adjacent arcs at the front ends of two of the inclined separator belts.

Figure 5 is a fragmentary plan of the universal drive whereby the swinging mechanism of the cradle is driven.

Figure 6 is a detail of the vine belt drive and scraping mechanism taken on the line 6, 6 in Figure 7.

Figure 7 is a side elevation of the construction shown in Figure 6.

Figure 8 is a section on the line 8, 8 in Figure 5.

Figure 9 is a diagrammatic side elevation of the machine on a reduced scale.

Referring to the drawings by numerals, the machine includes any suitable type of plow, or automatic shovel 1' by which the potatoes and vines are dug and fed to the conveyor or elevator 1. This conveyor 1 is in the form of an endless slat belt which is operated by any suitable connection from the power plant of the tractor or other vehicle on which the apparatus is carried, or if desired, from any other source of power. The elevator 1 is driven by a roller or elongated pulley 2 which as aforesaid is operated from any suitable source of power. The pulley 2 is carried by and secured to main drive shaft 100 which is driven by chain 101 (see Figure 9), which chain passes over sprocket 102 on said shaft and this chain also passes over sprocket 103 which is in turn driven by a short reducing chain gear 104 from the motor shaft, the motor being indicated in Figure 9 by reference character 23.

This elevator 1 which may be guided and supported by pulleys 3, is composed of slats suitably spaced to release the dirt initially dug up by the plow. The elevator and digger are known to be old and are merely suggested herein to illustrate the manner of feeding the vines with the potatoes thereon, stones, dirt, etc. to the separating or picking and sorting mechanism of the invention. The elevator 1 at its upper end projects the vines and potatoes on to and through a series of thin narrow vine belts 4, Figs. 1, 2, 6 and 7 which are spaced apart by several inches so that they discharge all the potatoes, stones, and other débris which are free of the vines, the latter passing rearwardly or to the left in Figure 2 with the motion of the belts. The potatoes which adhere thereto are removed and dropped through the belts on to the first sorting belt 5 to be further described. The belts 4 are of an elastic yielding nature and may to advantage be of the V type used as fan belts for motor vehicles, though the ordinary rope belts may be employed. These spaced belts or vine stripper belts 4 are carried or driven by a large grooved roller or multiple pulley 6 at the upper end of their traverse, the belts being arranged on an upward incline toward the left in Figure 2. The grooves in said pulley 6 are so proportioned that the belts lie with their outer surfaces which contact the vines slightly below or within the surface of the pulley and they are guided and supported at the opposite end by a small rubber or similar yielding pulley or roller 7. The pulley 6 which is elongated to extend across the machine as shown in Figure 1, is in the form of the invention shown, carried by suitable journal bearings 5' mounted on hinged plates or bars 8. These plates or bars are pivotally mounted on the frame of the ma-

chine at their lower ends at 9 and they extend upwardly and backwardly, carrying at their upper ends an adjustable stop 10. These plates 8 are supported near this stop by sliding pins 11 which extend through the frame of the machine at 14 to be more specifically described. The pins 11 are enclosed by coil spring 15 between the nuts 16 and the frame member 14. This spring 15 tends to raise the plates 8 and in the form of the invention shown the pins 11 extend above the frame 14 and are provided at their upper ends with nuts 16. Between the nuts 16 and the bars, the pins 11 are surrounded by coil springs 15 which are compressed between the nuts 11 and the frame extension plate 14. In this way the pins are given a resilient support so that the position of the pulley or roller 6 may be adjusted by means of the stop pin 10 which is provided with adjusting lock nuts 18 and 18' on the opposite sides of the plate or bar 8. The lower resilient roller 7 is in the form of the invention shown carried by a forwardly and downwardly inclined spring plate or bar 19 which is supported at its rear upper end on the pivoted plate 8 by means of a bolt 20 and coil spring 21 and at its lower forward end by a spring 22 connected at one end to the end of the bar and at the other end to the frame member 22'. This plate 19 is further guided by means of a substantially rigid guide pin 24 which is secured at one end in and to the central portion of the plate 19 and extends upwardly through a slot 25 in the plate 8.

The upper traverses of the belts 4 move upwardly to the left. i. e., rearwardly, in Figure 2, carrying the vines and the potatoes that cling thereto with them. As they move upwardly, they come in contact with a picking roller 26 which overlies the belt. This roller is operated by sprocket chains 27 at each end. These chains are driven by sprockets 28 on the main shaft 100 and pass over the tightener sprocket 30 and downwardly in contact with sprockets 31 on the ends of the roller 26 mounted in bearings 25' on belt tightener bars 12 and about suitable sprockets 32 at the ends of the roller 6 and on the same shaft therewith so that they drive this roller and then engage the lower side of the pulley 28.

The grooves 6', see Figure 6, in the roller 6, are cleaned by means of scrapers 34 of suitable shape carried on an angle iron bracket 35 on the frame extending transversely across the belts, Figure 7, the scrapers being stationary and in contact with the respective grooves 6', i. e., the grooves in the pulley are cleaned as it moves in its regular operation. A potato buffer in the form of a rubber strip 36 is provided to keep the potatoes from striking the roller 6 and becoming bruised as the potato vines are pulled through the rollers 6 and 26, the rubber strip or potato buffer 36 being carried by the angle iron 35. As already described, a portion of the useful potatoes and the stones are projected downwardly by the conveyor 1 as it goes around the pulley passing between the belts 4 so they land on the sorting belt 5 which is beneath the belts 4. The vines are carried upwardly and backwardly to the left in Figure 2, passing between the rollers 6 and 26 which are normally adjusted about ⅛'' apart so as to engage the vines and remove without damaging them the potatoes which may still adhere to the vines. The roller 26 is slightly forward of roller 6 to facilitate this operation. The stop 10 is adjusted to give the proper spacing and to prevent the rollers from coming in close contact whereby the vines would be crushed and broken. In case any stones are carried through by and with the vines, the roller 6 is free to yield downwardly on the springs 15. The takeup rod 37 maintains the desired tension on the chain 27 by means of the tightener roller 30, tending to move it upwardly, and this tension is adjusted by means of the said takeup rod 37 with opposed lock nuts 38 and 38'. Rollers 6 and 26 by their spring spacing engage the vines and draw them forward through the rollers, the latter serving to remove the potatoes which still cling to the vines. The arrangement of the rollers as described, particularly the forward spacing of roller 26, serves to remove the potatoes without crushing them by passing them between the rollers.

The sorting belt 5 consists of spaced slats 38 in Figure 1 carried by chains 39 at each side which run over sprockets 40 and 41, the latter being suitably driven by means of chain 42 running over a sprocket 43 secured to the shaft 41' which carries the sprocket 41.

The incline of the separator or sorting belt 5 is such that the majority of the stones which are ordinarily flat and also as distinguished from the potatoes are of greater specific gravity and lacking in resiliency, remain on the belt and pass upwardly with the belt whereas the potatoes, which are relatively round and resilient, bound and roll down the belt, being delivered with the few stones which are not separated, to a second sorting belt 45. This sorting belt 45 is driven by the chain 42, passing over a sprocket 47 on the shaft which carries the upper pulley 48 which supports and drives the upper end of the second sorting belt. The chain 42, as aforesaid, passes around sprocket 43 on the shaft of pulley 41 which it also drives, thus driving the sorting belt 5. The chain 42 is held in contact with pulley 47 by an idler or guide pulley 47'', and passes around the underside of this pulley 47, whence it passes upwardly around pulley 74' at the top. This pulley 74' is mounted on shaft 74 which is driven from the main drive shaft as hereinafter described. The belt 42 which is thus driven from shaft 74 drives the sorting belts 5 and 45. This sorting belt 45 continues the separating process described in connection with the sorting belt and separator 5 carrying forward and dropping such stones as may be separated into a chute 50 whereby the stones are discharged at the front of the separator mechanism, the stones from the upper belt 5 being discharged at the rear. Potatoes on this lower belt 45 are separated as they pass downwardly, due to gravity and the tendency to bounce and roll because of their roundness and resiliency. They are led to the opposite sides of the machine by means of a V shaped vane or guide 51 which overlies the sorting belt 45 as best shown in Figure 1. In this way they are delivered at the sides to the dividing members 53 and 54, see Figure 1, which deliver them to the inclined belts 55, 56, 57, 58 shown in Figures 1 and 2, which are operated by sprockets 52'' on the inclined shafts 59 driven by bevel gears 60 from the longitudinal shaft 61, see Figure 1, which is in turn driven by chain gearing 62 from the horizontal shaft 63 which is driven from shaft 74 at the top, to be further described, by chain 64. The potatoes move downwardly in the direction of the axes of the shafts of the pulleys or sprockets 52, 52', 52'', on which these belts 55, 56, 57, 58 are carried as best shown at 58 in Figure 2. The belts and pulley shafts being inclined downwardly to the front, Figure 2, the

potatoes in this instance, roll in the direction of the incline and, pass into the chutes 65 whereby they are delivered to suitable receptacle 66. The stones, instead of following the incline of the belts, move with the belt traverse, being delivered to the chutes 67 which drop the stones at the center of the furrow.

Portions of the mechanism, including the vine belts 4 and the pulleys therefor and the takeup mechanism and the picking roller 26 and the digging plow or scoop 1', together with motor 23 are on the stationary frame of the machine 70. The gravity sorting elements of the machine, including the separator belt 5, the separator belt 45 and the inclined belts 55, 56, 57, 58, as well as the chutes operating in connection therewith, are pivotally mounted on a longitudinal pivot which extends fore and aft, indicated by reference character 71, the same being supported on the frame 70. This pivoted portion of the machine which is supported on the cradle 72, being first mounted to swing sideways about the pivot 71 is also pivoted to swing fore and aft upon a hollow shaft 73 which contains the upper drive shaft 74. Thus the gravity sorting mechanism is universally mounted, the suspension by pivot 71 and shaft 73 at right angles thereto being referred to herein as a universal joint. This shaft 74 is driven by a sprocket 75 mounted on the end of said shaft, opposite to gear 74'. Sprocket 75 is driven by chain 76 from sprocket 77 on shaft 79 supported in tube 80. Shaft 79 is connected by universal joint 81 to shaft 82 mounted in a stationary tube bearing 83. Shaft 82 is driven by sprocket 107 which is in turn driven by chain 105, which runs over sprocket 106 on the main drive shaft 100.

The dividing members 53 and 54 are identical as shown in detail in Figure 4. This figure also shows the adjacent ends of the inclined belts 55 and 56 which are like the inclined belts 57 and 58, and similarly inclined. These members 53 and 54 are in the form of upwardly disposed wedges elongated in the direction of the axes of the belts and extending forwardly and downwardly between the adjacent arcs of belts 55 and 56 and between belts 57 and 58. Near the rear of the machine below the chute 45' and sorting belt 45 where most of the potatoes are deposited from sorting belt 45 and chute 45' which extend beyond the belt are supplementary adjustable dividing members 53', 54' carried by slotted lugs 52''' and bolts 51'. These members 53'—54' overlie the separators 53 and 54 and each of them carries a rubber flap 150 which engages the potatoes as they come from the overlying belt 45 where they are first deflected by the member 51. The separators 53', 54', are provided beneath the rubber flaps 150 with narrower horizontal rubber flaps 151. In this way the potatoes are prevented from impinging against the hard surface of the deflector whereby they might be injured and rendered defective. The potatoes then roll as aforesaid down the belts 55, 56, 57 and 58, along the dividing members or shields 53, 54 in the direction of the downward incline of the axes into chutes 65 and suitable receptacle 66, while the stones which rest on the belts 55, etc., being held by gravity and by their lack of resilience, pass upward with the belts to be delivered into the chutes 67 whereby they are dropped and discarded as previously described.

The important features of the machine are the means for the separation of the potatoes from the vines with which they are dug, the sorting and separation of the potatoes from the stones, utilizing the resiliency of the potatoes and the dead weight of the stones, together with their uneven exterior surfaces to separate them by gravity as described, and the automatic levelling of the gravity separating apparatus whereby interference with the operation of this gravity separating apparatus incident to change of level of the machine is avoided, and other details and features of the machine as described in the specification are pointed out in the claims.

I have thus described specifically and in detail a potato digger and sorting machine embodying the features of my invention in the preferred form in order that the manner of constructing, applying, operating and using the same may be fully understood, however, the specific terms herein are used in a descriptive rather than in a limiting sense, the scope of the invention being defined in the claims.

What I claim as new and desire to secure by Letters Patent is:

1. In a machine for digging and sorting potatoes, a carrier adapted to run on the surface of the soil, means for digging the potatoes and vines, a vine stripper comprising a series of relatively narrow substantially parallel belts, means for driving the belts, each belt being a separate continuous endless band, the belts being spaced apart transversely to their length to drop the free potatoes between the belts, means for feeding the vines with the potatoes thereon to said belts near one end to move longitudinally thereof, and stripping rollers at the far end of the belts in the direction of feed, spaced apart sufficiently to grip the vines and feed them rearwardly and sufficiently close together to prevent the passage of the potatoes which are thus stripped from the vines, one of said rollers having a yielding support, one said stripping roller serving to carry the belts and being grooved to receive each belt, the belt being depressed into the surface of the roller, and means in receiving relation to the vine stripping belts for receiving and sorting the potatoes and separating the refuse therefrom.

2. In a machine for digging and sorting potatoes, a carrier adapted to run on the surface of the soil, means for digging the potatoes and vines, vine belts for stripping the vines, said belts being spaced to drop the potatoes between the belts, a conveyor for leading the vines and potatoes from the digging means to the vine belts, an inclined sorting belt beneath the stripping means, the sorting belt being driven so the top traverse of the belt moves up the incline, the stones being passed up the incline of the sorting belt and discharged and the potatoes being caused to roll down the incline due to their resiliency, whereby they are separated from the stones, and means beneath the lower end of the sorting belt for further sorting the potatoes and a universally mounted gravity levelling support for said belt.

3. In a machine for digging and sorting potatoes, a carrier adapted to run on the surface of the soil, means for digging the potatoes and vines, vine belts for carrying the vines spaced to drop the potatoes between the belts, a conveyor for leading the vines and potatoes from the digging means to the vine belts, stripper rollers cooperating with the vine belts, said digging means, conveyor, vine belts, and stripping rollers being mounted directly on the carriage to move therein in accordance with the contour of the

ground, a pivotally mounted, gravity levelled cradle, and means supported thereon beneath the vine belt for receiving and sorting the potatoes and separating the refuse therefrom by gravity.

4. In a machine for digging and sorting potatoes, a carrier adapted to run on the surface of the soil, means for digging the potatoes and vines, vine belts for carrying the vines spaced to drop the potatoes between the belts, a conveyor for leading the vines and potatoes from the digging means to the vine belts, stripper rollers at the far end of the vine belts in the direction of the feed, said digging means, conveyor, vine belts, and stripping rollers being mounted directly on the carriage to move therewith in accordance with the contour of the ground, a pivotally mounted, gravity leveled cradle, and means supported thereon beneath the vine belts for receiving and sorting the potatoes and separating the refuse therefrom by gravity, said sorting means comprising a conveyor inclined downwardly and opposite to the motion of the upper traverse, and means for operating the same whereby the stones and other refuse are carried up the incline and discharged, the potatoes, due to their resiliency, rolling down the incline.

5. In a machine for digging and sorting potatoes, a carrier adapted to run on the surface of the soil, means for digging the potatoes and vines, vine belts for carrying the vines spaced to drop the potatoes between the belts, a conveyor for leading the vines and potatoes from the digging means to the vine belts, stripper rollers at the far end of the vine belts in the direction of the feed, said digging means, conveyor, vine belts, and stripping rollers being mounted directly on the carriage to move therewith in accordance with the contour of the ground, a pivotally mounted, gravity leveled cradle, and means supported thereon beneath the vine belts for receiving and sorting the potatoes and separating the refuse therefrom by gravity, said sorting means comprising a conveyor inclined downwardly and opposite to the motion of the upper traverse, and means for operating the same whereby the stones and other refuse are carried up the incline and discharged, the potatoes, due to their resiliency, rolling down the incline, and a series of conveyors beneath the first-mentioned sorting conveyor inclined in the direction of their axes so that the potatoes move down the incline, the débris and stones being caused to move up the incline and transversely to the motion of the potatoes, whereby the débris and stones are discharged and the sorted product is delivered.

6. In a machine for digging potatoes, a carrier adapted to run on the ground where the product is to be dug, means for digging the potatoes and vines, means for stripping the potatoes from the vines comprising belts spaced apart to drop the potatoes between the belts, means for sorting the potatoes by gravity and pivotally supported, gravity leveled means for supporting the sorting mechanism to maintain the desired level thereof independently of the contour of the ground.

7. In a machine for digging potatoes, a carrier adapted to run on the ground from which the potatoes are to be dug, means for digging the potatoes and vines, means for stripping the potatoes from the vines and dropping the potatoes, a cradle mounted on the carrier, a universal joint supporting the cradle on the carrier, gravity sorting means mounted on the cradle to be held at a constant angle to the vertical by the cradle, the angle of which with the vertical is maintained by gravity without regard to the contour of the ground, the gravity sorting means in receiving relation to the vine stripper to receive the potatoes therefrom.

8. In a machine for digging potatoes, means for digging the vines with the potatoes thereon, a carrier adapted to run on the ground from which the potatoes are to be dug, a cradle mounted on the carrier, a universal support supporting the cradle on the carrier, gravity sorting means mounted on the cradle to be held at a constant angle to the vertical by the cradle, the angle of which with the vertical is maintained by gravity without regard to the contour of the ground, and means for separating the potatoes from the vines and feeding the potatoes to the sorting mechanism.

9. In a machine for digging potatoes, means for uprooting the vines, a carrier adapted to run on the ground from which the potatoes are to be dug, a cradle mounted on the carrier, a universal joint supporting the cradle on the carrier, gravity sorting means mounted on the cradle to be held at a constant angle to the vertical by the cradle, the angle of which with the vertical is maintained by gravity without regard to the contour of the ground, and means for separating the potatoes from the vines and feeding the potatoes to the sorting mechanism, driving means mounted on the carrier, driven means concentric with one axis of the universal joint and driven from said driving means, a driving gear driven from said driven means, and connections therefrom to the sorting mechanism.

10. In a machine for digging and sorting potatoes, a carrier running on the surface of the soil, means for digging the potatoes with the vines thereon, stripping means for separating the potatoes from the vines and dropping the potatoes, inclined sorting belts in receiving relation to the stripping means to receive the potatoes therefrom, means for actuating the belts so that the uppermost traverse of the belt moves upwardly in the direction of the incline, means for feeding the potatoes on to the inclined sorting belt, the incline being such that the stones and débris move up the incline, the potatoes, due to their resiliency and roundness, being caused to roll down the incline, means for dropping the stones and means for further sorting the potatoes and a gravity levelling frame mounted on said carrier, and providing a universally tiltable automatically levelling support for said belts.

11. In a machine for digging and sorting potatoes, a carrier running on the surface of the soil, means for digging the potatoes with the vines, means for stripping the potatoes from the vines and dropping them, inclined sorting belts adapted to receive the potatoes from said stripping means, means for actuating the belts so that the uppermost traverse of the belt moves upwardly in the direction of the incline, means for feeding the potatoes on to the inclined sorting belt, the incline being such that the stones and débris move up the incline, the potatoes, due to their resiliency and roundness, being caused to roll down the incline, means for dropping the stones and means for further sorting the potatoes, and other belts arranged in pairs, the belts of each pair being inclined downwardly, each toward the other, and the belts being mounted on pulleys which are also inclined downwardly as to the direction of the axes of the pulleys, the potatoes being fed down the incline in the direction of the

axes and discharged, and the stones and débris being fed up the incline transversely to the direction of the motion of the potatoes.

12. In a machine for digging and sorting potatoes, a carrier running on the surface of the soil, means for digging the potatoes with the vines, means for stripping the potatoes from the vines and dropping them, inclined sorting belts adapted to receive the potatoes from said stripping means, means for actuating the belts so that the uppermost traverse of the belt moves upwardly in the direction of the incline, means for feeding the potatoes on to the inclined sorting belt, the incline being such that the stones and débris move up the incline, the potatoes, due to their resiliency and roundness, being caused to roll down the incline, means for dropping the stones and means for further sorting the potatoes, said further sorting means comprising an additional belt inclined in the direction of its length and having an operation similar to that of the first sorting belt, and other belts arranged in pairs, the belts of each pair being inclined downwardly, each toward the other, and the belts being mounted on pulleys which are also inclined downwardly as to the direction of the axes of the pulleys, the potatoes being fed down the incline in the direction of the axes and discharged, and the stones and débris being fed up the inclined traverse transversely to the direction of the motion of the potatoes.

13. In a machine for digging and sorting potatoes, a carrier running on the surface of the soil, means for digging the potatoes with the vines, means for stripping the potatoes from the vines and dropping them, inclined sorting belts adapted to receive the potatoes from said stripping means, pulleys for carrying the belts so that the uppermost traverse of each belt moves upwardly in the direction of the incline, means for feeding the potatoes on to the inclined sorting belt, the incline being such that the stones and débris move up the incline, the potatoes, due to their resiliency and roundness, being caused to roll down the incline, said sorting belts being also inclined as to the axes of the pulleys in a direction transverse to the traverse of the belt, the inclined pulleys at the lower ends of the belts being closely adjacent, a deflector for directing the potatoes to the respective parts of belts and separator between the lower ends of the belt traverses.

14. In a machine for digging and sorting potatoes, a carrier running on the surface of the soil, means for digging the potatoes with the vines, means for stripping the potatoes from the vines and dropping them, an inclined sorting belt adapted to receive the potatoes from said stripping means, means for actuating the belt so that the uppermost traverse of the belt moves upwardly in the direction of the incline, means for feeding the potatoes on to the inclined sorting belt, the incline being such that the stones and débris move up the incline, the potatoes, due to their resiliency and roundness, being caused to roll down the incline, and pivotally mounted, gravity controlled levelling and supporting means for said sorting mechanism.

15. In a machine for digging and sorting potatoes, a carrier running on the surface of the soil, means for digging the potatoes with the vines, means for stripping the potatoes from the vines and dropping them, an inclined sorting belt adapted to receive the potatoes from said stripping means, means for actuating the belt so that the uppermost traverse of the belt moves upwardly in the direction of the incline, means for feeding the potatoes on to the inclined sorting belt, the incline being such that the stones and débris move up the incline, the potatoes, due to their resiliency and roundness, being caused to roll down the incline, means for dropping the stones and means for further sorting the potatoes, and universally mounted, gravity controlled levelling and supporting means for said sorting mechanism.

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