Feb. 16, 1960 F. O. WORDEN 2,925,065

CATTLE OILER

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FIG.1

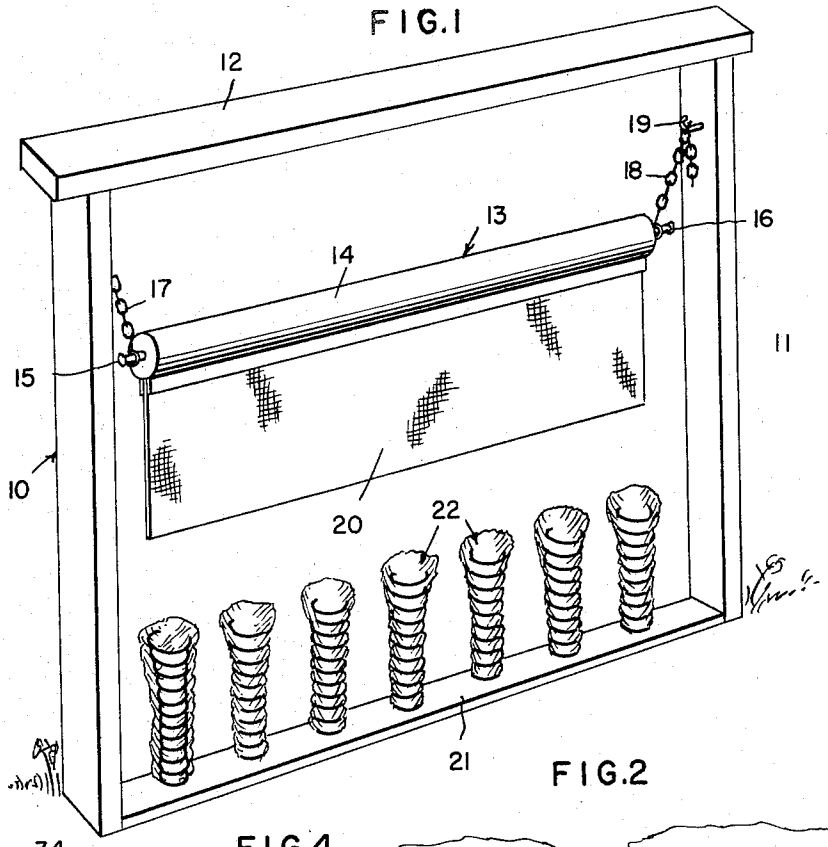


FIG.2

FIG.4

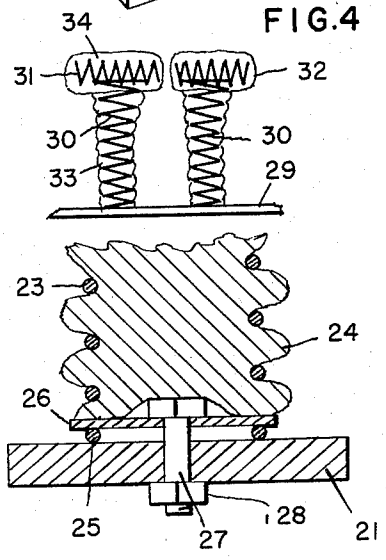
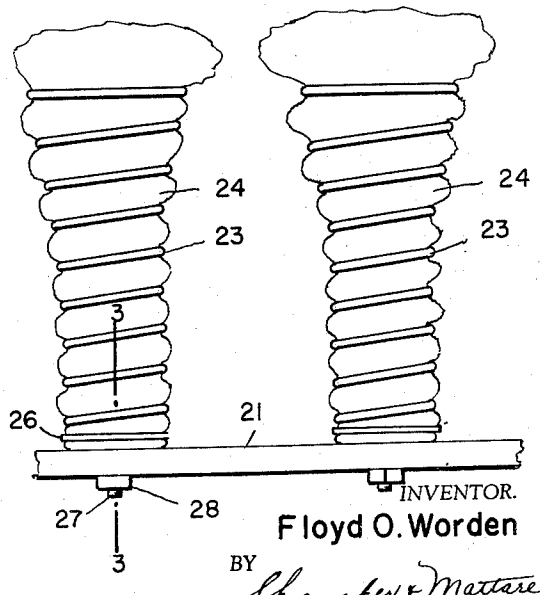


FIG.3



INVENTOR.
Floyd O. Worden
BY Shoemaker & Mattare
ATTYS

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FIG.5

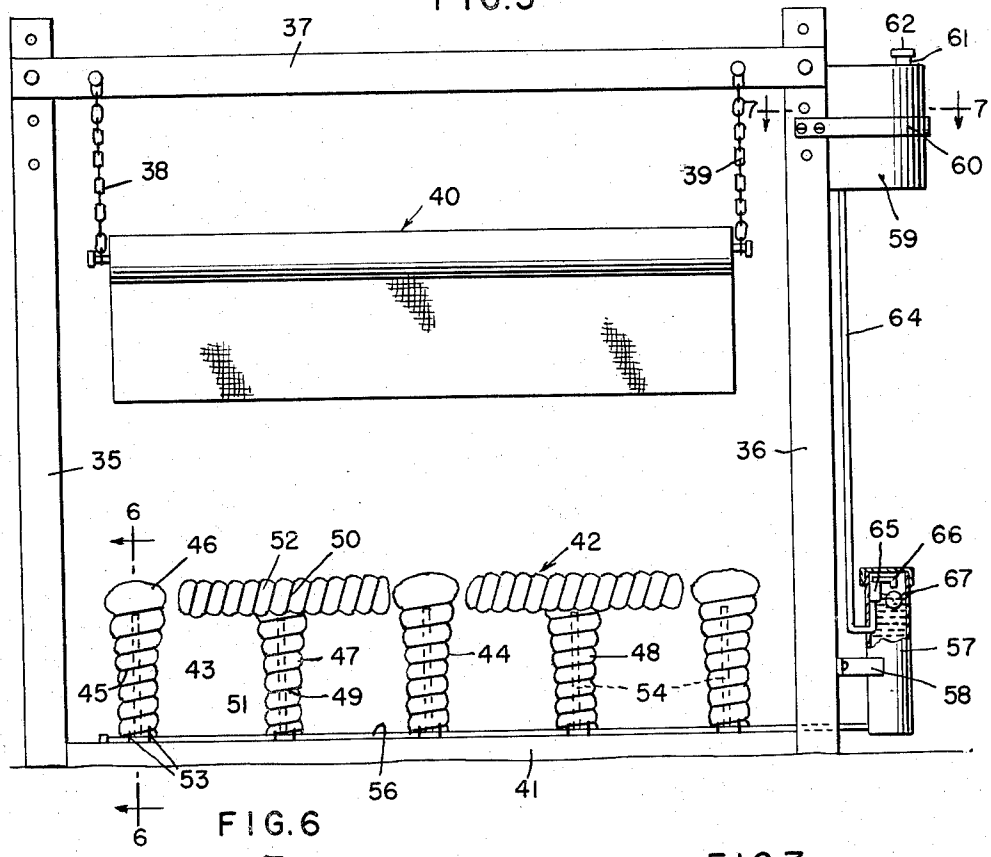


FIG.6

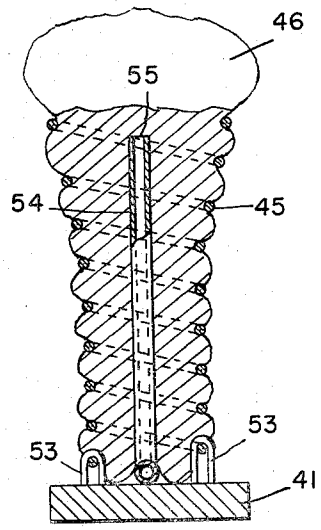
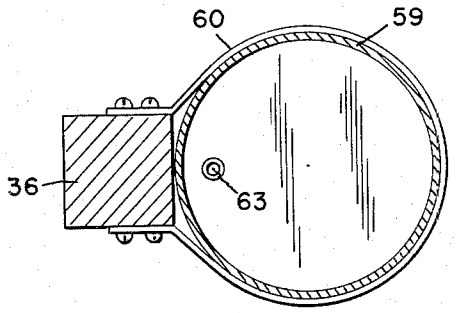


FIG.7



INVENTOR.
Floyd O. Worden

BY Shoemaker & Mattare

ATTYS.

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2,925,065

CATTLE OILER

Floyd O. Worden, Alliance, Nebr.

Application July 26, 1957, Serial No. 674,389

16 Claims. (Cl. 119—157)

This invention relates generally to devices for oiling the hides of live stock and more particularly pertains in certain improvements wherein the legs, brisket and belly may be more effectively coated with medicating oil or the like.

The use of oiling devices for cattle and other live stock which are adapted to dispense oil directly upon the backs of the animals as they pass thereunder is quite well known. For example, the structure disclosed in my Patent No. 2,814,272, of November 26, 1957 shows an elongate substantially horizontally disposed cylinder constituting an oil reservoir and having a flexible absorbent apron depending therefrom which is saturated with oil from the reservoir and which is suspended from a suitable support such that cattle or other live stock passing thereunder will drag the apron across their backs and consequently dispense oil on their hides. Now, whereas such constructions are entirely practicable and effective to distribute medicating oils upon the animals' hides, the legs, brisket and belly of the animals particularly do not receive a sufficient quantity of the oil to effect the desired results. The oil used in dispensers of this general type contain a soothing ingredient which treats and relieves itching and which conditions the skin and hair and also includes chemicals which kill flies, lice, mange, mites and other parasites which plague live stock. It is, therefore, desirable to directly apply the oil to as much of the animal's hide as is possible.

It is, accordingly, of primary concern in connection with this invention to provide means to directly apply fluids, such as medicating oils, to the legs, brisket and belly of live stock.

It is, therefore, a further object of this invention to provide a device of the character described which incorporates a plurality of flexible elements disposed in fixed upstanding relationship and which embody absorbent means which are saturated with medicating oil or the like so that when the live stock pass over the flexible members, the absorbent material will directly apply the oil to the undersides of the live stock.

Another object of this invention is to provide a device of the character described which is utilized in conjunction with an over head oil applying device and wherein the members for applying the oil to the undersides of the live stock are supplied with the medicating oil by drippings from the overhead device.

A further object of this invention is to provide an assembly for applying medicating oil to the legs, brisket and belly of the live stock which embodies a plurality of upstanding coil springs fixed at their lower ends to a suitable base at the ground surface and wherein the springs carry absorbent means such as waste cotton or the like which is saturated with medicating oil and which will contact the hides of live stock as they pass through and over the spring assemblies.

With the above and other objects in view, the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended, it being understood that various changes in the form, proportions, and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:

Fig. 1 is a perspective view of an assembly constructed in accordance with this invention and showing a more or less conventional overhead oiler and illustrating the disposition of the underside oiler;

Fig. 2 is an enlarged elevational view showing a portion of the underside oiling assembly;

Fig. 3 is an enlarged vertical section taken generally along the plane of section line 3—3 in Fig. 2;

Fig. 4 is an elevational view showing a modified form of the invention;

Fig. 5 is an elevational view of a modified form of the invention showing portions thereof in section to more clearly illustrate the principles of operation;

Fig. 6 is an enlarged vertical section taken substantially along the plane of section line 6—6 in Fig. 5; and

Fig. 7 is an enlarged horizontal section taken through the reservoir tank and along section line 7—7 in Fig. 5.

Referring at this time more partciularly to Fig. 1, reference numerals 10 and 11 indicate a pair of vertical supports or posts which are interconnected at their upper ends by a cross brace member 12 and which cumulatively form a support for the overhead oiling assembly indicated generally by the reference character 13.

The oiler 13 may be of any desired type, for example, it may be constructed in the manner disclosed in my Patent No. 2,814,272 of November 26, 1957. The oiler 13 includes essentially a substantially horizontally disposed cylindrical reservoir 14 having stub axle elements 15 and 16 projecting from its opposite ends which are rotatably secured to the chain elements 17 and 18 respectively by means of which the assembly is supported from the two posts 10 and 11, as, for example, by the hook 19 shown on the post 11. Secured to and along the length of the reservoir 14 is a flexible, depending apron 20 which is of a suitable absorbent material and which either directly or indirectly is in communication with the oil contained in the reservoir 14 so as to remain in saturated condition.

In general, assemblies of the type described above are placed in a pasture or barnyard or any conventional place where live stock, such as cattle, may pass between the posts 10 and 11 and thus drag the apron 20 over their backs. Preferably, the outer surface of the reservoir 14 is provided with a roughened surface so as to scratch the animal's back.

The apron 20 will apply a liberal quantity of oil directly to the animal's back and whereas some of this oil will seek its way to the underside of the animal, there is no positive assurance that a sufficient amount of oil will be applied particularly to the legs, brisket and belly of the animal to effect the desired end results of soothing the animal's skin and killing any parasitic insects which may be present.

In order to apply a suitable quantity of oil directly to the underside of the animal, there is provided a base plate member 21 between the posts 10 and 11 and preferably substantially directly beneath the overhead oiling assembly 13. Supported on this base plate 21 are a plurality of upstanding, flexible arms indicated generally by the reference character 22 and each of which is rigidly affixed to the base plate 21 at its lower end, whereby the flexible elements are free to yield as an animal passes between the posts 10 and 11 and brush against the legs, brisket and belly of the animal.

Associated with each of the individual flexible elements

is absorbent means which is saturated with medicating oil so that the oil will be applied directly to the underside of the animal. Although it is within the scope of this invention to utilize the flexible elements and their associated absorbent means alone, in which case the absorbent means would have to be separately saturated with the medicating oil, it is preferred to use the flexible means in association with an overhead oiler of the type generally indicated by the reference character **13**, wherein the drippings from the apron **20** will maintain the absorbent means in the flexible assemblies **22** in saturated condition. Since there is a certain amount of drippage from the apron **20** under normal circumstances, the combination of the two assemblies is efficient from all standpoints.

Preferably, the individual flexible underside oiling assemblies take the form as shown more clearly in Fig. 3. In this figure, the assemblies will be seen to consist essentially of a coil spring element **23** rigidly affixed at its lower end to the base **21** and in upstanding relation thereto. Disposed inside each of these coil springs is a quantity of absorbent material **24** and the absorbent material preferably sticks out from between the coils of the spring and out through the top thereof, as is clearly shown in Fig. 3 so as to present a maximum surface area for applying the oil to the animals.

The absorbent means may be of any desired material, such as waste cotton, and it may be placed within the spring assemblies while the same are in stretched condition so that when the springs are released, they will pinch the material between the coils and hold it in place, substantially as is shown in Fig. 3.

Preferably, the upper or free ends of the springs are flared so as to present a large mass of the absorbent material at the upper ends of the individual springs. This is particularly useful in assuring not only that a maximum amount of the oil dripping from the overhead assembly will be collected but also that a large surface area of the absorbent material will wipe against the animal's hide and thus dispense the oil thereon.

Many means can be employed in securing the springs to the base plate **21**, one such means being illustrated in detail in Fig. 3. In this figure, it will be seen that the lowermost coil **25** of the spring is clamped to the upper surface of the base plate **21** by means of a strip **26** through which a bolt **27** passes serving to hold the strip **26** in clamped position against the lowermost coil **25**. Of course, a nut **28** is associated with the bolt **27** to hold the assembly in rigid position but leave the whole extent of the spring free to freely flex.

The modification illustrated in Fig. 4 comprises a suitable base member **29** having a number of upstanding coil spring elements **30** mounted thereon in similar fashion to those previously described in connection with Figs. 1–3 inclusive. The coil springs **30** are, however, provided at their upper free ends with transverse flexible members or springs **31** and **32** which are all disposed in substantially aligned relationship with the opposite ends thereof disposed closely adjacent to but not quite touching adjacent ends of adjacent transverse flexible members, as is clearly shown in Fig. 4. The springs **30** and the transverse springs **31**, **32**, etc. are filled with suitable absorbent material **33** and **34**, as is clearly shown for the purpose of transferring the medicating oil to the livestock.

The purpose of the transverse flexible members **31**, **32** is to provide a somewhat greater area of absorbent material which will come into contact with the brisket and legs of the live stock and which will expeditiously transfer the oil thereto.

The modification illustrated in Fig. 5 embodies the essential features of the invention as set forth in regard to Fig. 1 but includes some additions thereto intended to more positively assure a sufficient supply of material

to the flexible members. In Fig. 5, reference characters **35** and **36** indicate a pair of uprights having a cross piece **37** extending therebetween adjacent their upper ends and which are suitably mounted or set into the ground. The cross piece **37** carries through the chain members **38** and **39**, the oiler **40**, constructed similarly to the previously described oiler **13**. Extending between the uprights **35** and **36** and along the ground surface is a base member **41** upon which are mounted a series of upright flexible elements indicated generally by the reference character **42**.

In the specific embodiment shown, the flexible members **42** alternately take the forms shown respectively in Figs. 1 and 4 as previously described. That is, every other element such as those indicated by the reference characters **43** and **44** take the form of a single vertically disposed coil spring **45** secured at its lower end to the base **41** and being filled with absorbent material **46**, and every other alternate flexible element such as those indicated by the reference characters **47** and **48** comprises an upstanding coil spring **49** secured at its lower end to the base **41** and having secured in transverse relationship thereto across its upper end a second coil spring **50**, both of which are filled with absorbent material as indicated by the reference characters **51** and **52**.

As will be readily apparent upon reference to Figs. 1, 2 and 6, the uprightly disposed coil springs terminate short of the top ends of the elongated mass of absorbent material therein so that a substantial portion of the absorbent material lies above the top end of the supporting or sustaining means constituting the coil spring and it is spread out in such a way as to provide an oil applicating tuft. These tufts serve to spread, more or less in the nature of a brush, the oil or other liquid which they carry, over the portion of the hide of the animal with which they come in contact when the animal passes over the upstanding applicator elements.

As illustrated in Fig. 6, the specific means for securing the upright coil springs to the base **41** consists of a series of staples **53** which are engaged over the lowermost coil of the spring as is shown in this figure, and which serve to securely anchor the same to the base. Extending upwardly substantially concentric within each of the upright coil springs is a flexible tube **54** having its upper end **55** terminating adjacent the upper end of the coil spring. A single supply line **56** runs along the upper surface of the base **41** and is connected through suitable couplings to all of the various vertical flexible tubes **54** so that all are in common communication with this supply line **56**.

Mounted at an elevation above the elements **42**, as, for example, on the support element **36** is an oil supply tank **57**, being secured thereto by suitable bracket members **58** or the like and the supply line **56** is in direct communication with this supply tank, as is illustrated whereby the oil is delivered by gravity to the elements **42**. Mounted adjacent the upper end of the upright **36** is a reservoir tank **59**, see particularly Figs. 5 and 7, and this tank is secured to the upright by a suitable bracket **60** and is provided with a filler means **61** and suitable cap or closure member **62** and has an opening **63** in its bottom wall to which is connected the conduit **64** leading to the supply tank **57**. As is shown most clearly in Fig. 5, the conduit **64** is connected to a suitable float controlled valve **65** disposed within the supply tank **57** and liquid from the reservoir **59** is discharged into the supply tank through the outlet nozzle or fitting **66**. The float **67** in the supply tank and forming part of the valve **65** permits a predetermined level of liquid to accumulate in the supply tank and it is preferred that this level of liquid be substantially at a height corresponding to the position of the open upper ends **55** of the several flexible tubes **54** within the various elements **42**.

In operation, the absorbent material embodied within the various flexible elements not only receives a source

of the liquid chemical from the oiler assembly **40**, as has been previously described in connection with Fig. 1, but the absorbent material also receives a quantity of chemical from the supply tank through the medium of the flexible tubes **54**. As the various flexible members are engaged by the live stock, and tilted downwardly, the flexible tubes **54** will deliver chemical into the absorbent material and, of course, a constant level of the chemical will be maintained in the supply tank **57** as provided for by the float valve assembly therein. This positively assures a constant and adequate supply of liquid chemical to the absorbent material of all of the flexible members and supplements that which is deposited thereon by the overhead oiler **40**. By utilizing alternately the single and double forms of flexible elements **42** as shown in Fig. 5, there will be very little area of the assemblage which is not exposed to the dripping from the overhead oiler and there will be little waste, if any, since there will be practically a continuous strip of absorbent material beneath the apron of the oiler **40**.

I claim:

1. An oiler for coating the legs, brisket and belly with an insecticide comprising a plurality of elongate, substantially vertically disposed flexible, resilient elements having their lower ends fixed to a supporting surface and disposed in spaced reationship to each other to provide a hedge-like assembly through which an animal may pass, each of said elements consisting of an elongate coil spring, and a quantity of absorbent material disposed within each of said springs and projecting through the coils thereof and from the tops thereof for contact with an animal's hide.

2. An oiler for coating the legs, brisket and belly of an animal, comprising a series of aligned and substantially vertically disposed flexible, resilient elements having their lower ends fixed to a supporting surface, each of said elements including a main body portion in the form of a coil spring and each spring being filled with a quantity of absorbent material projecting through the coils of the spring and from the top thereof for contact with an animal's hide, and oil supplying means connected with the absorbent material in each spring for supplying oil thereto.

3. In combination with a support, a horizontally disposed, elongate reservoir suspended from said support, an absorbent apron fixed along said reservoir and depending therefrom so as to drag across an animal's back when passing beneath the reservoir, said apron being adapted for saturation with insecticide contained within said reservoir, a series of upright, flexible applicators fixed along a line below said apron to become saturated with insecticide dripping from said apron, each applicator comprising a vertically disposed, elongate coil spring fixed at its lower end to a support and being stuffed with absorbent material to retain insecticide.

4. In combination with a support, a horizontally disposed, elongate reservoir suspended from said support, an absorbent apron fixed along said reservoir and depending therefrom so as to drag across an animal's back when passing beneath the reservoir, said apron being adapted for saturation with insecticide contained within said reservoir, a series of upright, flexible applicators fixed along a line below said apron to become saturated with insecticide dripping from said apron, each applicator comprising a vertically disposed, elongate coil spring fixed at its lower end to a support and being stuffed with absorbent material to retain insecticide, the upper end of each coil spring being flared, and said absorbent material being disposed in each spring so as to project outwardly thereof through the coils and the flared open top, whereby to afford a maximum surface area for contacting the legs, brisket and belly of an animal.

5. In combination with a support, a horizontally disposed, elongate reservoir suspended from said support, an absorbent apron fixed along said reservoir and depending therefrom so as to drag across an animal's back when passing beneath the reservoir, said apron being adapted for saturation with insecticide contained within said reservoir, a series of upright, flexible applicators fixed along a line below said apron to become saturated with insecticide dripping from said apron, each applicator comprising a vertically disposed, elongate coil spring fixed at its lower end to a support and being stuffed with absorbent material to retain insecticide, a substantially horizontal, transverse flexible element fixed to the upper end of each coil spring and being stuffed with absorbent material to retain insecticide.

6. An oiler for coating the legs, brisket and belly of an animal, comprising a series of aligned and substantially vertically disposed flexible, resilient elements having their lower ends fixed to a supporting surface, each of said elements including a main body portion in the form of a coil spring and each spring being filled with a quantity of absorbent material projecting through the coils of the spring and from the top thereof for contact with an animal's hide, a flexible tube projecting upwardly within each of said coil springs and being opened at its upper end, a conduit interconnecting and communicating with all of said flexible tubes, and a supply tank connected to said conduit for discharging liquid chemical through said conduit and tubes into the absorbent material.

7. A live stock oiler assembly comprising a pair of vertical support posts, an elongate reservoir member disposed substantially horizontally between said posts and suspended from adjacent the upper ends thereof whereby the reservoir is disposed above the ground surface, an absorbent apron fixed along and depending from the reservoir for saturation with liquid insecticide disposed within the reservoir, a base extending lengthwise between said posts in direct alignment beneath said apron, a plurality of substantially vertically disposed elongate flexible elements fixed to said base and spaced therealong beneath said apron for receiving chemical drippings from the apron, each of said elements including a coil spring body and a filler of absorbent material in the coil spring body, and means operatively associated with said elements for supplying supplemental liquid chemical to the absorbent material of said flexible elements.

8. The assembly as defined in claim 7 wherein the last mentioned means includes a flexible tube extending vertically upwardly in concentric relationship within each of said coil springs, a conduit extending along said base and connected to all of said flexible tubes, and a supply tank for containing liquid insecticide and communicating with said conduit.

9. The assembly as defined in claim 8 including means for maintaining a constant level of liquid insecticide within said supply tank, and the level of insecticide within said supply tank being substantially at the same height above the ground surface as are the upper ends of said flexible tubes, whereby liquid insecticide is dispensed into the absorbent material principally when the flexible elements are bent downwardly.

10. The assembly as defined in and by claim 7 wherein every other flexible element consists only of a single vertically disposed coil spring and the absorbent means disposed therein, with intermediate flexible elements consisting of a vertically disposed coil spring and a horizontally disposed coil spring attached at the upper end thereof and defining a T-shaped configuration, the opposite ends of the horizontally disposed coil springs being disposed in closely spaced relation to adjacent vertical coil springs whereby a substantially uninterrupted surface is presented along the series of flexible elements so as to afford a maximum area of engagement with an animal's hide.

11. An oiler for coating the legs, brisket and belly of an animal, comprising a series of aligned and substantially vertically disposed flexible, resilient elements hav-

ing their lower ends fixed to a supporting surface, each of said elements including a main body portion in the form of a coil spring and each spring being filled with a quantity of absorbent material projecting through the coils of the spring and from the top thereof for contact with an animal's hide, an oil supply reservoir located at an elevation above said elements, and means operatively associated with said elements for supplying oil by gravity from the reservoir to said elements.

12. An oiler for coating the legs, brisket and belly of an animal, comprising a series of aligned and substantially vertically disposed flexible, resilient elements having their lower ends fixed to a supporting surface, each of said elements including a main body portion in the form of a coil spring and each spring being filled with a quantity of absorbent material projecting through the coils of the spring and from the top thereof for contact with an animal's hide, an oil supply reservoir located at an elevation above said elements, and means operatively associated with said elements for directing the flow of oil by gravity from said reservoir downwardly to and into contact with said elements for absorption by the elements.

13. An oiler for coating the legs, brisket and belly of an animal, comprising a series of aligned and substantially vertically disposed elongate elements, each of said elements including a long mass of absorbent material and a resilient sustaining means for said mass secured to an underlying supporting surface and extending throughout the major part of the length of the mass, with a substantial amount of said mass of material lying above the sustaining means and forming a top oil applicating tuft for contact with the hide of an animal crossing over the elements, an oil supply reservoir located at an elevation above said elements, and means operatively associated with said elements for directing the flow of oil by gravity downwardly from the reservoir and into contact with and for adsorption by the mass of material forming a part of each of said elements.

14. Apparatus for applying a liquid coating to the legs, brisket and belly of an animal, comprising a row of vertically positioned elongate applicator elements of two

forms in which a first form embodies a long mass of liquid absorbent material and a resilient sustaining means for the mass secured to an underlying supporting surface and extending throughout the major part of the length of the mass, with a substantial amount of the mass lying above the sustaining means and forming a top liquid applicating tuft, and a second form of element which embodies an elongate mass of liquid absorbent material with a resilient sustaining means therefor secured to an underlying supporting surface and an elongate liquid absorbing element supported upon and transversely of the top of the last mentioned elongate mass, the first and second forms being arranged in the row with at least one form between two other and different forms, a liquid supply reservoir located at an elevation above said elements, and means operatively associated with said elements for directing the flow of oil by gravity downwardly from the reservoir and into contact with and for absorption by the mass of material forming a part of each of said elements.

15. The invention according to claim 14, wherein the sustaining means for said second form is a coil spring encasing the elongate mass of liquid absorbent material and said transversely supported element has its ends each adjacent to and directed toward a tuft of a first form.

16. The invention according to claim 14, wherein the sustaining means for said second form is a coil spring encasing an elongate mass of liquid absorbent material and said transversely supported element embodies a coil spring having a mass of absorbent material therein and secured to the top end of the underlying coil spring, and the height of both forms of elements is approximately the same whereby the tops thereof lie in substantially one common plane.

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