Sept. 5, 1933. W. M. FELTON 1,925,377

RUG AND CARPET CLEANING MACHINE

Filed July 14, 1930 6 Sheets-Sheet 1

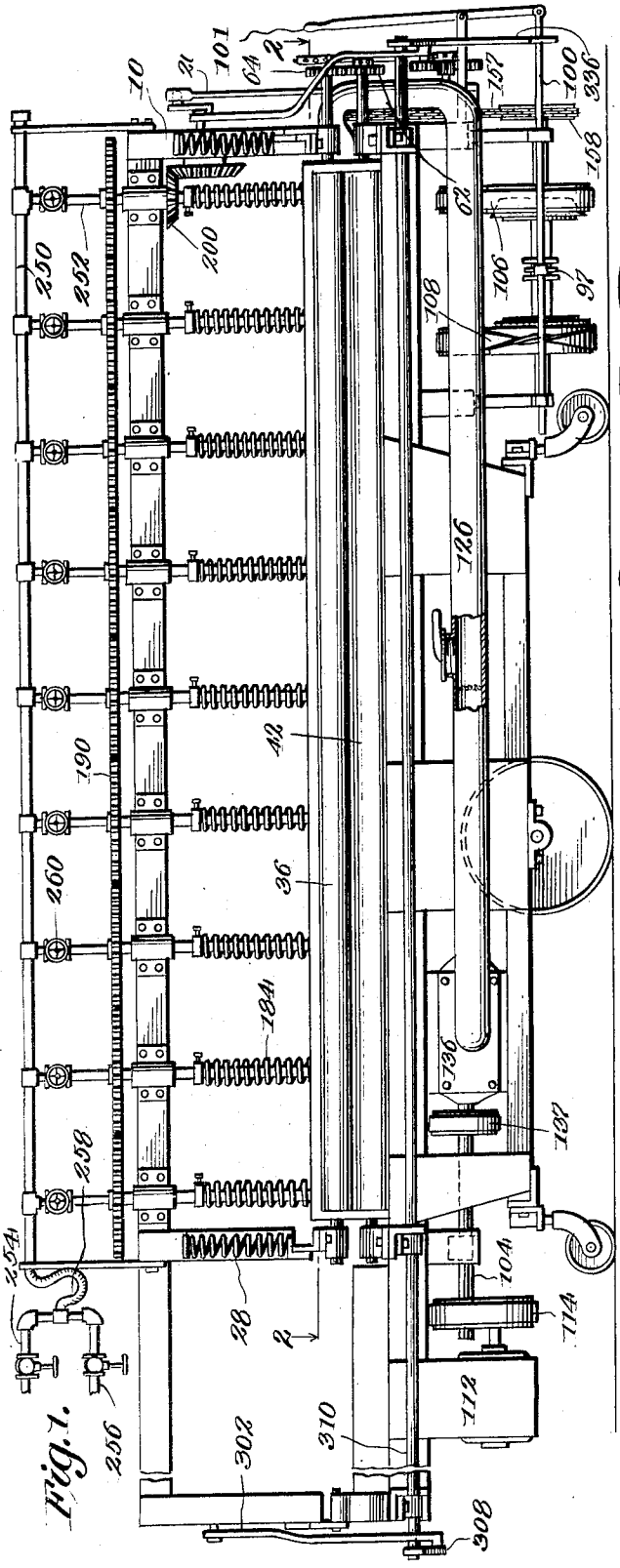

Fig. 1.

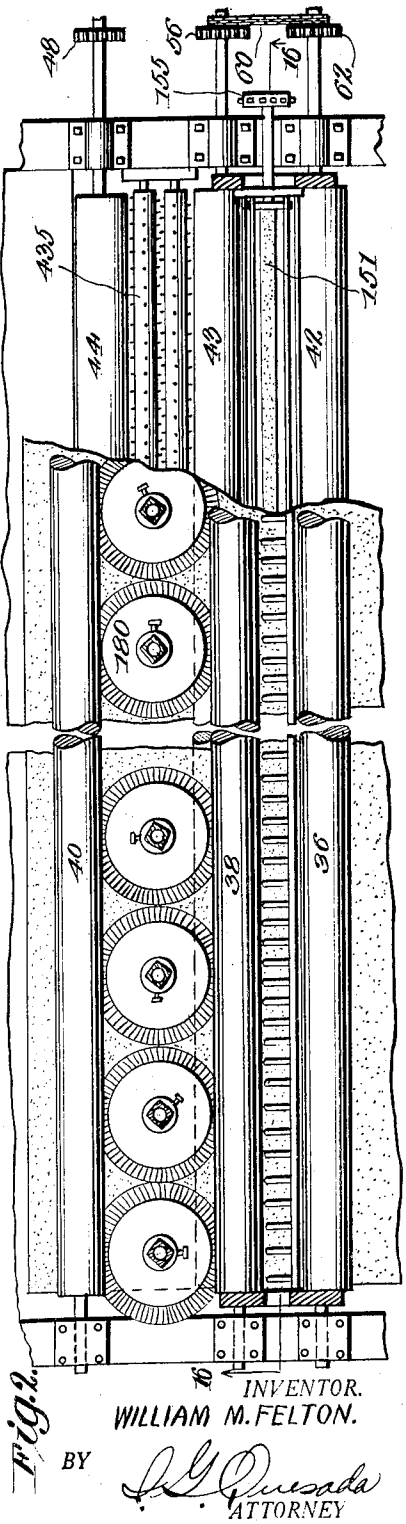

Fig. 2.

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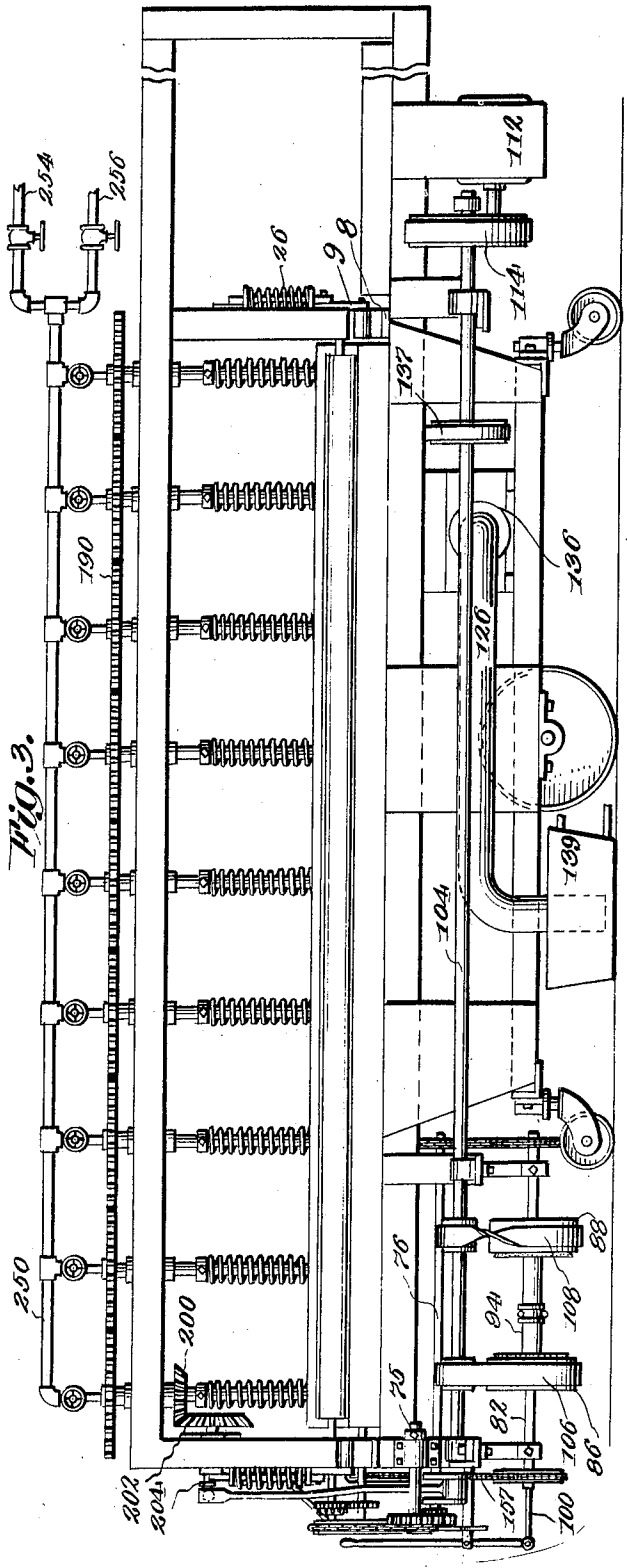

Fig. 3.

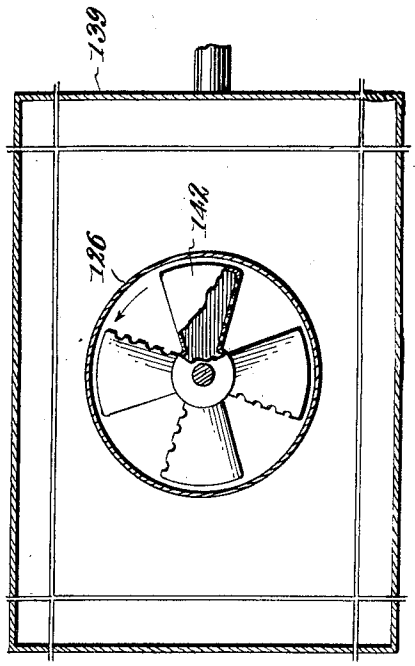

Fig. 5.

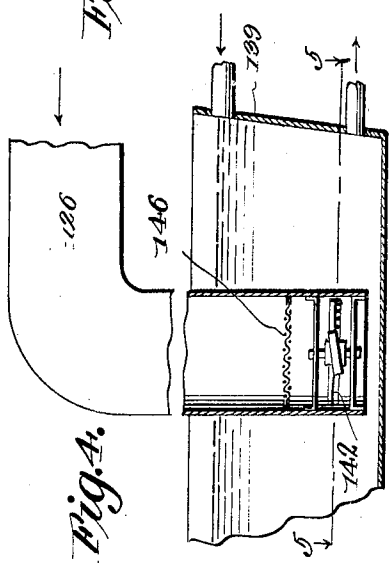

Fig. 4.

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RUG AND CARPET CLEANING MACHINE

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Fig. 7.

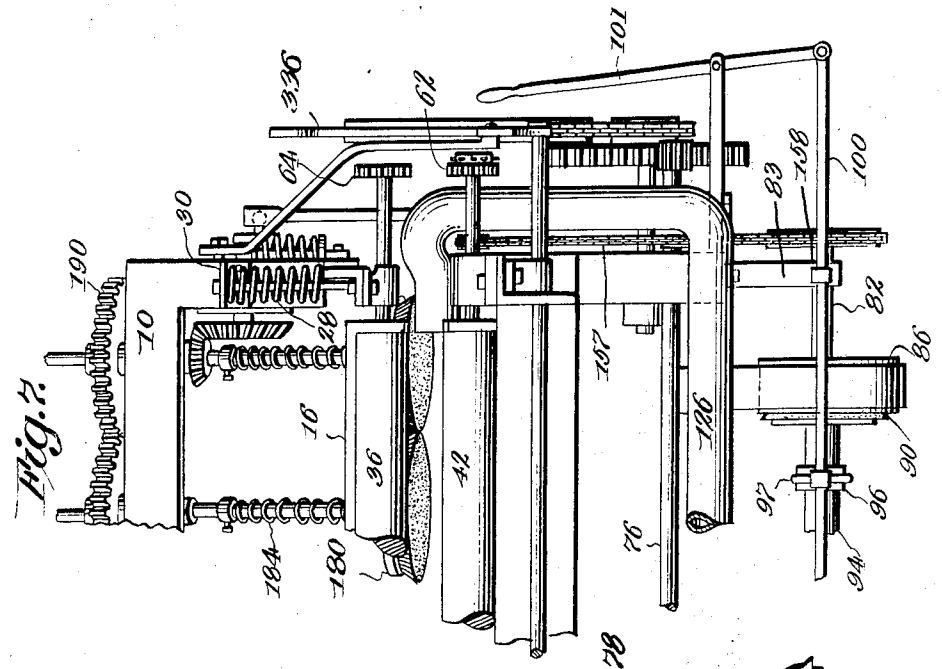
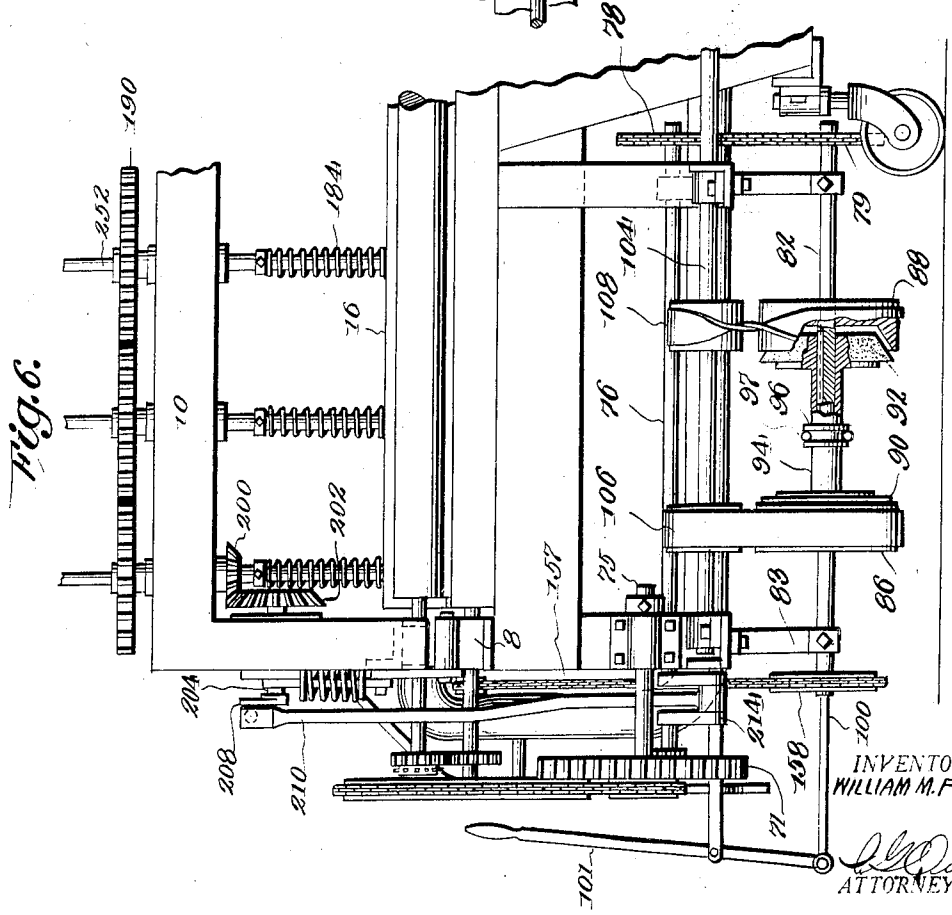


Fig. 6.



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RUG AND CARPET CLEANING MACHINE

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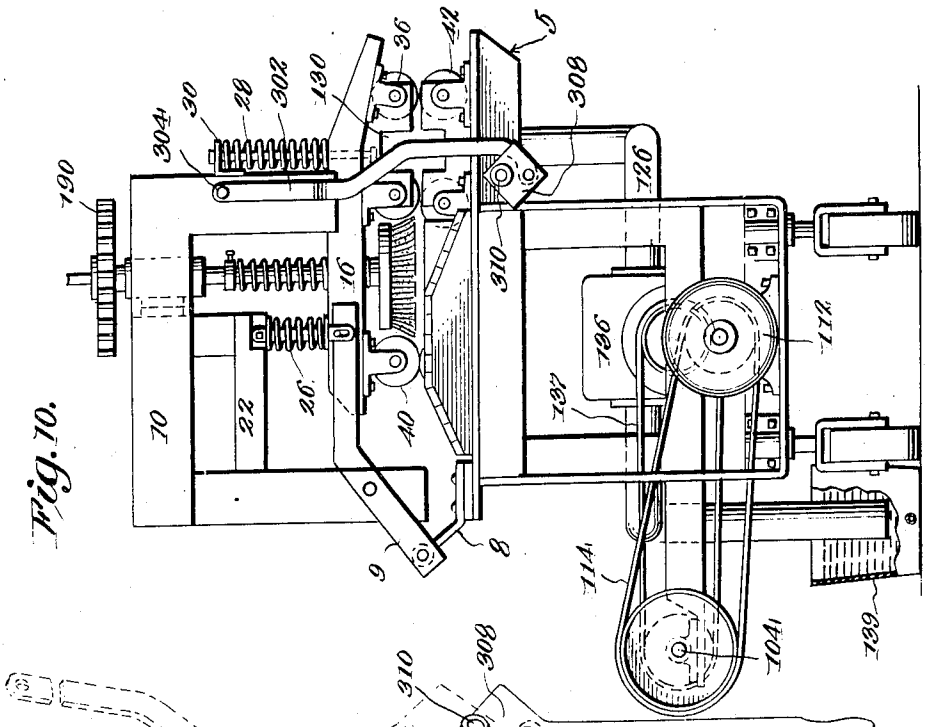

Fig. 10.

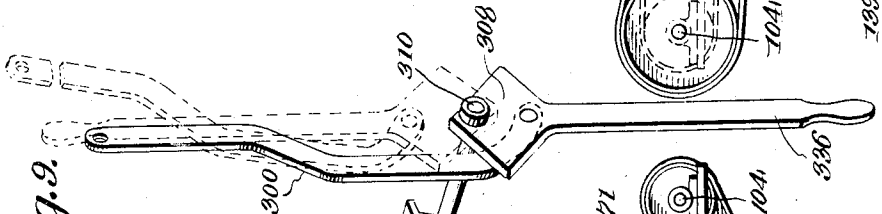

Fig. 9.

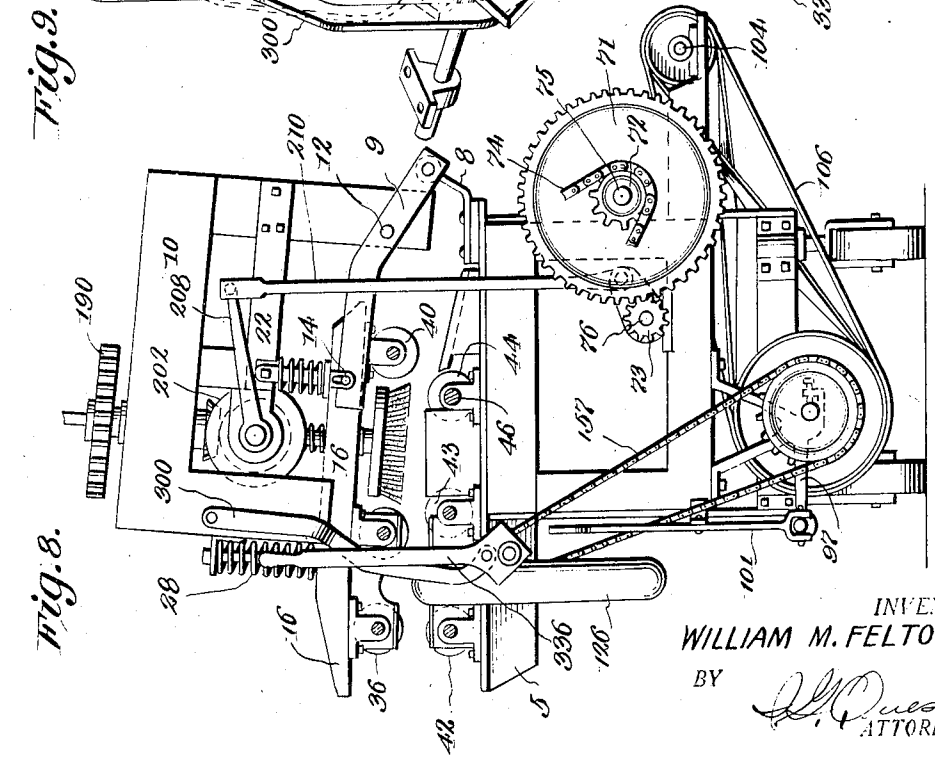

Fig. 8.

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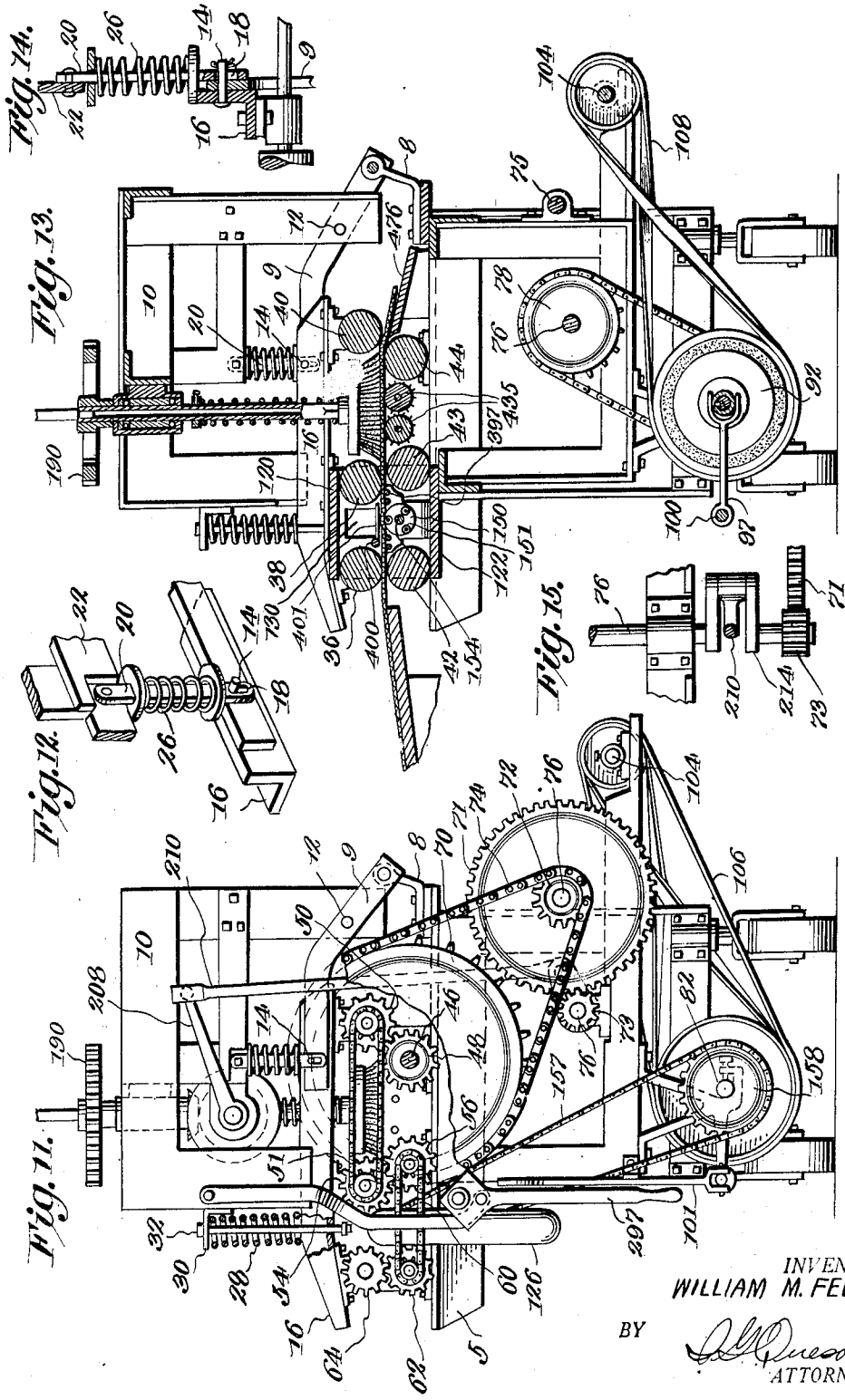

Fig. 14.

Fig. 13.

Fig. 15.

Fig. 12.

Fig. 11.

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RUG AND CARPET CLEANING MACHINE

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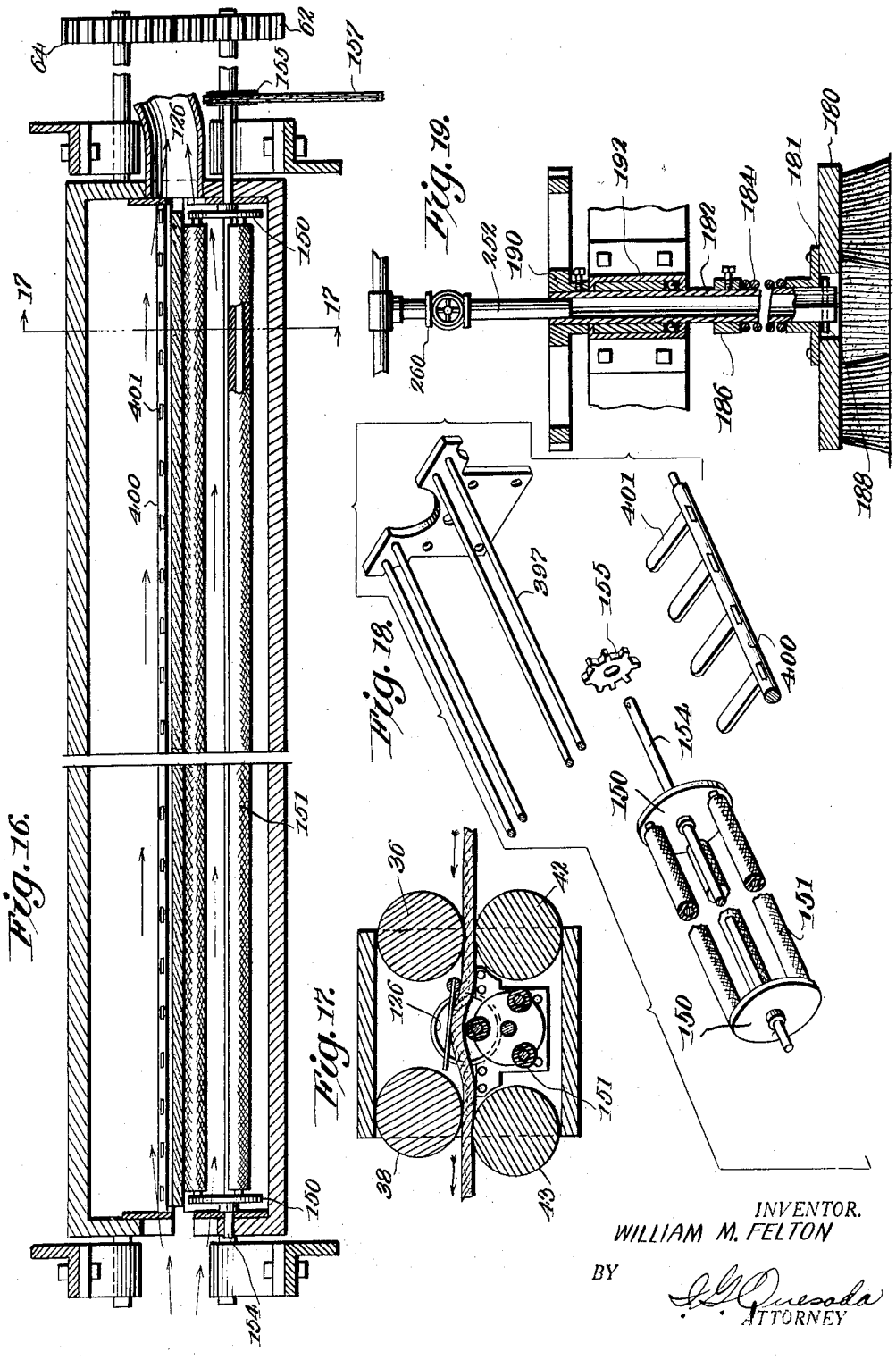

Patented Sept. 5, 1933 1,925,377

UNITED STATES PATENT OFFICE

1,925,377

RUG AND CARPET CLEANING MACHINE

William M. Felton, Harrisburg, Pa., assignor to C. W. Smith

Application July 14, 1930. Serial No. 467,895

15 Claims. (Cl. 15—40)

This invention relates to rug and carpet cleaning machines.

Briefly stated, the invention forming the subject of this application has for an important object the provision of efficient and expeditious means by which a rug or carpet may be subjected to a plurality of successive cleaning operations such, for example, as beating, vacuum, scrubbing and rinsing, to the end that the dirt therein is effectively removed and the original lustrous appearance of the rug restored so far as is possible to do so.

More specifically, the invention contemplates novel means by which a restricted portion of the rug is exposed to a vacuum sufficiently strong to remove from that portion of the rug the dirt therein, it being noted in this connection that the said restricted portion of the rug is, simultaneously with the vacuum treatment thereof, subjected to the action of a beater by which the dirt is loosened to permit the same to be carried off in an efficient manner by the air.

Another attribute of the invention resides in the fact that the dust laden air incident to the use of vacuum, so called, is introduced into a body of water or other liquid so that the dust is taken up by the water to obviate the need of employing vacuum bags and at the same time to avoid contamination of the atmosphere about the machine. In further adverting to the vacuum arrangement, brief reference might be had to the fact that a sort of rotary blade is located at the point of discharge of dust laden air from the conductor therefor into the body of water to bring about the diffusion of the dust laden air through the body of surrounding water, first to assure the substantially complete separation of the dust and air and, second to avoid splashing of the water by the strong air force necessary for efficient cleaning purposes.

The invention has as another attribute the provision of simple means by which the rug cleaning brushes are oscillated rather than constantly rotated in the same direction so that the more effective cleaning of the rug is assured and at the same time the life of the bristles is prolonged.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this application and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a front elevation of the machine,

Figure 2 is a horizontal sectional view taken on line 2—2 of Figure 1, a portion of the structure being broken away for additional illustration,

Figure 3 is a fragmentary rear elevation of the machine,

Figure 4 is a detail sectional view illustrating the manner in which the dust laden air is directed into a body of water and is diffused through such water to assure the complete separation of the dust and air and at the same time to avoid splashing of the water,

Figure 5 is a horizontal sectional view taken on line 5—5 of Figure 4,

Figure 6 is an enlarged fragmentary rear elevation illustrating the motion transmitting mechanism at one end of the machine.

Figure 7 is an enlarged fragmentary front elevation illustrating that end of the machine shown in Figure 6,

Figure 8 is an end elevation of the machine with the brush and roller carrier in a raised position, the view being partly in section to expose the rug engaging means,

Figure 9 is a perspective illustrating the means by which the brush and roller carrier may be raised to an inoperative position,

Figure 10 is an elevation illustrating that end of the machine opposite the end shown in Figure 8,

Figure 11 is an elevation of the same end of the machine as is shown in Figure 8, parts being broken away,

Figure 12 is a fragmentary sectional perspective illustrating the connection between a hinged superframe and a roller carrier,

Figure 13 is a vertical transverse sectional view through the machine, the view illustrating the carpet supporting, beating and cleaning means,

Figure 14 is a vertical sectional view through the structure illustrated in Figure 12,

Figure 15 is a fragmentary plan view illustrating a motion transmitting mechanism embodied in the invention,

Figure 16 is a vertical longitudinal detail sectional view through what might be said to be the inlet side of the machine, the view illustrating the means by which the carpet or rug is subjected to the action of a beater and a vacuum, and being taken on line 16—16 of Figure 2.

Figure 17 is a detail vertical transverse sectional view taken on line 17—17 of Figure 16,

Figure 18 is a fragmentary sectional group perspective illustrating the beater and the supporting means therefor,

Figure 19 is a fragmentary vertical sectional view through the brush assembly.

In the drawings wherein for the purpose of illustration is shown a preferred embodiment of the invention, the numeral 5 designates a frame of a suitable length and height and which may, of course, be formed from angle iron or other suitable material. As shown in Figures 3 and 8, the top of the frame 5 is provided at what might be said to be the outlet side of the machine with straps 8 to which the attaching arms 9 of a superframe or head 10 are horizontally pivoted, the arms 9, of which there may be two, one at each end of the superframe, are horizontally pivoted intermediate the ends thereof to the adjacent ends of the superframe 10 as indicated at 12.

In carrying out the invention, the forward portions of the arms 9 are horizontally pivoted as indicated at 14 to the rear portion of a roller carrier 16 in the nature of a substantially horizontally arranged rectangular frame. As shown in Figures 12 and 14, each pivot element 14 is extended through an elongated slot 18 in the lower portion of a link 20 which is, in turn, pivoted to a bracket 22 rigidly connected to the superframe. An expansion spring 26 of helical formation is confined between each bracket 22 and the adjacent portion of the frame 16 to urge the rollers carried by the frame 16 downward into pressure engagement with the rug being treated.

As shown in Figure 8, what might be said to be the forward portion of the roller carrier 16 has no rigid connection with the superframe 10 and the rollers carried thereby are urged down into pressure engagement with the rug being treated through the medium of expansion springs 28. The expansion springs 28 are confined between the frame 16 and ears 30, the ears being rigidly connected to the superframe 10. By reference to Figure 11, it will be seen that stay bolts 32 are extended through the ears 30 and through that portion of the roller carrier 16 located immediately below and provide a means by which limited movement of the roller carrier 16 with respect to the superframe is allowed while at the same time, a predetermined upward movement or raising of the superframe will result in similar movement of the roller carrier. The manner of mounting the roller carrier 16 provides uniform pressure engagement of the rollers thereof with the rug being treated.

The rollers carried by the frame 16 are designated by the numerals 36, 38 and 40 and are, as shown in Figure 11, provided with motion transmitting means by which rotation of the rollers in unison is accomplished.

The rollers 36, 38 and 40 operate above the rug or carpet while a second set of rollers 42, 43 and 44 are located for engagement with the underside of the rug and act with the rollers above to feed the rug through the machine.

The roller 44 is keyed or otherwise rigidly secured to a shaft 46 upon which a spur gear 48 is also keyed or otherwise rigidly secured. Figure 11 illustrates that when the superframe 10 is in the lowered position as distinguished from a raised position, the spur gear 48 is in mesh with a spur gear 50 which is, in turn, rigidly associated with the roller 40.

A motion transmitting mechanism 51 in the nature of a sprocket chain and associated sprockets establishes a driving connection between the roller 40 and the roller 38, one of the sprocket wheels in this assembly having rigid connection with the roller 40 while the other sprocket wheel has, of course, rigid connection with the roller 38.

Continued reference to Figures 11 and 13 will show that the roller 38 has rigid connection at one end thereof with a spur gear 54 adapted to mesh with a similar gear 56 rigidly associated with one end of the roller 43. That is to say, when the superframe 10 is in the lowered position as suggested in Figure 11 the gear 54 is in mesh with the gear 56. On the other hand, when the superframe 10 is in the raised position disclosed in Figure 8, the gears 54 and 56 will be out of mesh. However, it is intended that the upper and lower rollers shall be turned only to conduct the rug or the like through the machine so that when the superframe is in the raised or inoperative position suggested in Figure 8 there will be no need for turning the rollers.

A second motion transmitting mechanism 60 in the nature of a sprocket chain and a pair of sprocket wheels establishes a driving connection between the lower roller 43 and the lower roller 42, there being insufficient space on the drawing to give each part of this simple assembly a reference character.

The motion transmitting assembly 60 drives the roller 42 and a spur gear 62 and the spur gear 62, in turn, is adapted to mesh with and drive a spur gear 64, the latter being rigidly associated by a key or other means with the upper roller 36. When the superframe 10 is raised, the gear 62 will, of course, lose driving engagement with the gear 64.

The feed rollers 36, 38, 40, 42, 43 and 44 are all turned in a direction to feed the rug or the like in the desired direction through the machine, the direction of rotation of the rollers being determined by the direction in which the sprocket wheel 70 rigidly connected to the shaft 46 is turned. Figure 11 illustrates that the sprocket wheel 70 has connection with a substantially smaller sprocket wheel 72 through the medium of a sprocket chain 74. The sprocket wheel 72 is, in turn, mounted on and is rigidly secured to a countershaft 75 shown through gears 71 and 73 in Figures 6 and 13 to be rotatably carried by the frame 5. The countershaft 75 has operative connection with a motion transmitting shaft 76 shown in Figure 6 to have one end thereof provided with a sprocket wheel 78 operatively connected to another sprocket wheel 79, the sprocket wheel 79 being mounted on a motion transmitting shaft 82. The shaft 82 is rotatably carried by brackets 83 suspended from the frame 5 or otherwise connected thereto.

By reference to Figures 1 and 6, it will be seen that the shaft 82 has clutch drums or pulleys 86 and 88 rotatably mounted thereon. Clutch cones 90 and 92 are associated with the drums 86 and 88, respectively, to provide a means by which either of the drums may be turned. More specifically, the clutch cones 90 and 92 are joined by a sleeve or tubular member 94 slidably and non-rotatably mounted on the shaft 82.

The intermediate portion of the sleeve or tubular member 94 is formed with a pair of spaced collars 96 defining a groove for the reception of the fingers of a clutch arm 97. The clutch arm 97 is carried by a longitudinally movable clutch rod 100 which is, in turn, pivoted to the lower portion of a clutch lever 101. The intermediate portion of the clutch lever 101 is shown in Figure 1 to be fulcrumed to an arm carried by the frame so that, either the cone 90 or the cone 92 may be

operatively connected to its associated clutch drum. The clutch arrangement illustrated also provides a means by which the driving connection between the source of power and the various rug working devices may be interrupted.

Figure 6 illustrates that the clutch drums 86 and 88 have connection with a main drive shaft 104 through the medium of belts 106 and 108, the belt 106 being simply trained about the clutch drum 86 and being uncrossed, while the belt 108 is trained about the clutch drum 88 and is crossed. Thus, the direction of rotation of the shaft 82 and consequently the various rollers 36, 38, 40, 42, 43 and 44 may be reversed together to cause the carpet being treated to travel in either one of two directions.

As shown in Figure 3, the main drive shaft 104 has connection at one end with a source of power 112 through the intervention of a motion transmitting mechanism 114 of any nature.

Coming now to the means by which the carpet or rug, as the case may be, is subjected to a vacuum cleaning process, attention is invited to Figures 13 and 17 in which it is illustrated that the upper rollers 36 and 38 operate immediately below what might be said to be a closure plate or strip 120 while the lower rollers 42 and 43 operate immediately above the lower closure strip or plate 122.

More specifically, the rollers 36 and 38 operate sufficiently close to the closure 120 and the lower rollers 42 and 43 operate sufficiently close to the lower closure plate 122 to form a chamber through the intermediate portion of which the rug passes. When the rug is passing between the rollers 36, 38, 42 and 43 the admission of air in substantial volume to the chamber defined by these rollers is allowed only by way of the opening 130 and such air will have the desired cleaning effect on the rug. The air admitted to the chamber defined by the rollers 36, 38, 42 and 43 and the associated closures 120 and 122 is drawn off from the chamber by an air conduit 126. The conduit 126 has the inlet end thereof positioned in opposed recesses in the supporting members for the ends of the rollers 36, 38, 42 and 43 to allow the superframe 10 to be moved to the lowered position with the feed rollers in close contact with the rug to the end that the chamber between the feed rollers 36, 38, 42 and 43 is open for the admission of air in substantial volume only at one end thereof as indicated by the opening 130.

A suction or vacuum is created within the conduit 126 through the medium of a suction pump 136 which, as suggested in Figures 3 and 10, is driven from the main drive shaft 104 through the employment of a motion transmitting assembly 137.

As shown in Figure 3, the conduit 126 for the dust laden air has an outlet branch arranged vertically and extending into a container 139 for water. Figure 4 clearly illustrates that the conduit 126 discharges the dust laden air into the container 139 below the level of liquid therein so that upon its discharge from the conduit 126 the air must travel through the water. As an incident to such travel of the dust laden air through the water, the air will, of course, give up the dust sustained therein.

It is important to observe that the outlet end of the conduit 126 is provided with a sort of fan or rotor 142 having perforated radial blades in the path of travel of the air and which bring about the diffusion of the dust laden air more or less uniformly through the entire body of water in the container 137. By this arrangement, the complete separation of the dust and air is attained and at the same time the splashing of the water under the influence of the strong pressure of air is avoided. In carrying out the invention, a screen 146 may be employed in the outlet branch of the conduit 126 and as shown in Figure 4 is located at the opposed side of the rotor 142 to protect the same against damage by such hard or solid particles as may be recovered from the carpet being cleaned.

Suitable means may be employed to maintain a desired level of water in the container 139 and to maintain the same free of an excessive accumulation of dust.

Figures 16, 17 and 18 illustrate a rotary beater that operates between the rollers 42 and 43 to loosen and remove the dirt from the adjacent portion of the rug so that such dirt may be picked up by the air and conducted through the pipe 126.

The beater comprises a pair of end disks 150 joined by rods upon which tubular beating elements 151 of rubber or other suitable material are mounted. It is believed to be clear that the rotation of the beater will bring the contact members 151 into striking engagement with the adjacent portion of the rug and will impart to the rug a shaking action by which the dust is loosened and detached therefrom. The disk shaped members 150 are rigidly mounted on a shaft 154 upon which a sprocket wheel 155 is mounted. A chain 157 is trained about the sprocket wheel 155 and about a sprocket wheel 158. The wheel 158 is keyed on the shaft 82.

Figure 6 illustrates that the sprocket wheel 158 is keyed or otherwise secured to the shaft 82. Thus, the beater detailed in Figures 16, 17 and 18 is reversible along with the various feed rollers and purely as an incident thereto so that when, and if, the rollers are reversed, the beater is necessarily reversed without separate adjustment.

As shown in Figures 7, 11 and 13, the superframe 10 carries a plurality of horizontally disposed brushes or cleaning heads 180 arranged close together and extending for substantially the full length of the machine.

Each brush head 180 is shown in Figure 19 to be provided with an attaching hub 181 movable lengthwise and nonrotatably mounted on the squared lower portion of a vertically arranged brush operating shaft 182. The brush head 180 is shown to be urged downward into pressure engagement with the rug below by an expansion spring 184, the upper portion of which abuts an adjustable collar 186 on the shaft 182. Obviously, each brush head is held against slipping off the lower end of its shaft by the employment of a locking pin 188 or the equivalent thereof.

The upper portion of each shaft 182 carries a horizontally disposed spur gear 190, the hub of which rests on a bearing 192. The various gears 190 are shown in Figure 3 to be in mesh with each other and one of the shafts 182 is provided with a bevelled gear 200 meshing with a second bevelled gear 202 which, in turn, is keyed or otherwise rigidly secured to a shaft 204. The shaft 204 is rotatably carried by the superframe 10 and is shown in Figure 11 to be provided with a crank 208, the outer end of which has a swiveled connection with a vertically disposed pitman rod 210.

As shown in Figure 6, the lower portion of the pitman rod 210 is connected to the crank 214 forming a part of the motion transmitting shaft

76. Thus, rotation of the shaft 76 in either direction will result in the oscillation of the bevelled gears 200 and 202 and in oscillation or rocking of the brush heads 180.

The oscillation or rocking of the brush heads 180 while in contact with the rug or carpet brings about a more effective cleaning action and at the same time avoids permanent canting of the bristles of the brushes, it being noted in connection with the latter statement that in cleaning machines of various kinds, it has been found that the constant rotation of the brushes in the same direction results in permanent canting of the bristles.

Referring now to Figures 1 and 13, it will be observed that a main water supply pipe 250 is extended lengthwise of the superframe 10 and is provided with downwardly extending branch pipes 252 having the outlets thereof positioned within the motion transmitting shafts 182 to direct the water through such shafts on to the rug below. Hot and cold water supply pipes 254 and 256, respectively, may be connected to the main supply pipe or manifold 250 through the intervention of a flexible hose 258. Of course, the purpose in making the connection 258 flexible is to allow the superframe to be raised and lowered without interference with the water supply or the connections thereof.

Each branch pipe 252 is provided with a valve 260 affording a means by which a concentrated flow of water to a particular area of the rug or carpet being cleaned may be had.

Incidentally, the water may be saponified or it may contain any one of a number of other ingredients.

Figures 8 and 10 illustrate that links 300 and 302 are pivoted to opposite ends of the superframe 10 as indicated at 304 and are pivoted at the lower ends thereof to what might be said to be a lower set of links 308 which are, in turn, pivoted to the main frame 5 as indicated at 310. One of the links 308 is shown to be provided with an extension or handle 336 providing a simple means by which the superframe may be moved to a raised position to allow one end of the carpet or rug to be introduced into the machine.

When one end of the carpet or rug has been introduced into the machine, the superframe 10 is lowered so that the various feed rollers will have effective contact with the upper and lower surfaces of the carpet or rug. The machine is now started in the desired direction and the rollers will feed the rug or carpet across the beater and immediately beneath the cleaning brushes. Incidentally, as shown in Figure 13, the beater is positioned between pairs of fixed supporting rods 397 by which the adjacent portion of the rug is held in place for action by the rotating beater. Immediately above the beater there is located a longitudinally extending shaft 400 having a plurality of spaced parallel transversely directed fingers 401 of inherently flexible material to cooperate with the beaters in removing the dirt and dust from the rug. The fingers are merely vibrated as an incident to the engagement of the tubular members 151 with the opposite side of the rug.

As shown in Figure 13 that portion of the carpet or rug being scrubbed by the brush heads 180 is supported and is held firmly in place by the protuberances on a suitable number of rollers 435. More specifically, the rollers 435 are rotatably mounted and are provided with rather short radial spurs that engage the underside of the rug and thereby hold the rug against shifting under the influence of the oscillating brush heads above.

In this manner, temporary distortion of that portion of the rug being scrubbed is avoided so that the complete and progressive scrubbing of the rug is assured. The rollers 40 and 44 are effective in wringing from the carpet the fluid used in cleaning the rug.

When the carpet approaches the end of travel in one direction, it is a simple matter to reverse the feed rollers and thereby accomplish the return travel of the carpet through the machine and this may be repeated as long as it is necessary to effect the entire cleansing of a rug and the restoration of the same to its original lustrous condition so far as is possible to do so.

Having thus described the invention, what is claimed is:

1. In a carpet cleaning machine, a frame having a plurality of feed rollers, a superframe hinged to the first named frame, a carrier having movable connection with the superframe and provided with a plurality of rollers cooperating with the first named rollers in directing a rug through the machine, and in the formation of a chamber a plurality of cleaning elements carried by the superframe, and a suction device communicating with said chamber, there being spring means urging the carrier in the direction of said first named feed rollers.

2. In a carpet cleaning machine, a frame having a plurality of feed rollers, a superframe hinged to the first named frame, a carrier having connection with the superframe and provided with a plurality of rollers cooperating with the first named rollers in directing a rug through the machine and in the formation of a chamber, a plurality of cleaning elements carried by the superframe, means whereby the superframe may be moved in an arcuate path with respect to the first named frame, and a suction device communicating with said chamber, there being spring means urging the carrier in the direction of the first named rollers.

3. In a carpet cleaning machine, a frame having a plurality of feed rollers, a superframe hinged to the first named frame, a carrier having movable connection with the superframe and provided with a plurality of rollers cooperating with the first named rollers in directing a rug through the machine, a plurality of cleaning elements carried by the superframe, means whereby the superframe may be moved in an arcuate path with respect to the first named frame, and means carried by the first named frame for actuating the cleaning elements carried by the hinged superframe.

4. In a machine for cleaning rugs, a main frame, a plurality of laterally spaced rollers carried by the main frame, a superframe hinged to the main frame, a carrier pivoted to the superframe contiguous to the main frame and being provided with a plurality of rollers normally adjacent to and cooperating with the first named rollers, means associated with said first and second named rollers and cooperating therewith in the formation of a chamber, an air conduit extending from said chamber, and a suction pump operatively connected to said conduit.

5. In a machine for cleaning rugs, a main frame, a plurality of laterally spaced rollers carried by the main frame, a superframe hinged upon the main frame, a carrier pivoted to the superframe contiguous to the main frame and being provided with a plurality of rollers nor-

mally adjacent to and cooperating with the first named rollers, means associated with said first and second named rollers and cooperating therewith in the formation of a chamber, an air conduit extending from said chamber, a suction pump operatively connected to said conduit, and a beater in said chamber.

6. In a machine for cleaning rugs, a main frame, a plurality of laterally spaced rollers carried by the main frame, a superframe hinged to the main frame, a carrier pivoted to the superframe contiguous to the main frame and being provided with a plurality of rollers cooperating with the first named rollers, means associated with said first and second named rollers and cooperating therewith in the formation of a chamber, there being spring means acting in opposed relation to said superframe and said carrier, an air conduit extending from said chamber, a suction pump operatively connected to said conduit, beaters in said chamber, a source of power for said beaters and said rollers, and freely separable motion transmitting elements establishing a driving connection between the rollers carried by the first named frame and the rollers carried by the carrier.

7. In a machine for cleaning rugs, a main frame, a plurality of laterally spaced rollers carried by the main frame, a superframe hinged to the main frame, a carrier pivoted to the superframe contiguous to said main frame, and being provided with a plurality of rollers cooperating with the first named rollers, means associated with said first and second named rollers and cooperating therewith in the formation of a chamber, an air conduit extending from said chamber, a suction pump operatively connected to said conduit, beaters in said chamber, a source of power for said beaters and said rollers, means whereby said rollers and said beaters may be reversed together, a plurality of cleaning brushes carried by said superframe and arranged for cleaning engagement with the rug, and means operatively connecting the brushes carried by the superframe with said source of power, said source of power being carried by said main frame.

8. In a machine for cleaning rugs, a main frame, a plurality of laterally spaced rollers carried by the main frame, a superframe hinged to the main frame, a carrier attached to the superframe and being provided with a plurality of rollers normally adjacent to and cooperating with the first named rollers, means associated with said first and second named rollers and cooperating therewith in the formation of a chamber, an air conduit extending from said chamber, a suction pump operatively connected to said conduit, beaters in said chamber, a source of power for said beaters and said rollers, means whereby said rollers and said beaters may be reversed together, a plurality of cleaning brushes carried by said superframe and arranged for cleaning engagement with the rug, means operatively connecting the brushes carried by the superframe with said source of power, said source of power being connected to the main frame and carried thereby and spring means acting in opposed relation to said superframe and said carrier.

9. In a machine for cleaning rugs, a main frame having a rug support, a superframe horizontally hinged to the main frame, a carrier having arms pivoted to said superframe, rug engaging rollers supported by said carrier, means associated with said carrier to urge said rollers into uniform pressure engagement with a rug being treated, means cooperating with said rollers in the formation of an air chamber, and a beater in said air chamber.

10. In a machine for cleaning rugs, a main frame having a rug support, a superframe having pivotally mounted arms hinged to the main frame, a carrier pivoted to said arms, rug engaging rollers arranged in spaced parallel relation and carried by said carrier, spring means engaging said carrier at spaced points to urge the rollers into uniform pressure engagement with the rug being cleaned, and a beater arranged adjacent to said rollers.

11. In a machine for cleaning rugs, a main frame having a rug support, a superframe having pivotally mounted arms hinged to the main frame, a carrier pivoted to said arms, rug engaging rollers arranged in spaced parallel relation and carried by said carrier, spring means engaging said carrier at spaced points to urge the rollers into uniform pressure engagement with the rug being cleaned, a beater arranged adjacent to said rollers, and a plurality of cleaning brushes carried by said superframe and arranged for cleaning engagement with the rug, there being means urging the brushes individually into pressure contact with the rug.

12. In a machine for cleaning rugs, a main frame having a rug support, a superframe having pivotally mounted arms hinged to the main frame, a carrier pivoted to said arms, rug engaging rollers arranged in spaced parallel relation and carried by said carrier, spring means engaging said carrier at spaced points to urge the rollers into uniform pressure engagement with the rug being cleaned, a beater arranged adjacent to said rollers, a plurality of cleaning brushes carried by said superframe and arranged for cleaning engagement with the rug, a source of power and means operatively connecting said source of power to said rollers and to said beater.

13. In a machine for cleaning rugs, a frame, a plurality of spaced parallel motion transmitting shafts rotatably carried by the frame and being provided with intermeshing gears transmitting the motion of one of the shafts to the other, brush heads slidably and nonrotatably carried by said shafts, a rug supporting means, means mounted on said shafts to urge the brush heads into pressure contact with the rug carried by said rug supporting means, and means to oscillate said motion transmitting shafts and said brush heads.

14. In a machine for cleaning rugs, a frame, a plurality of spaced motion transmitting shafts carried by the frame and being provided with means transmitting the motion of one of the shafts to the other, brush heads slidably and non-rotatably carried by said shafts, a rug support, means to urge the brush heads into pressure contact with the rug being cleaned, and means to rock said motion transmitting shafts and said brush heads.

15. In a machine for cleaning rugs, a frame, a plurality of motion transmitting shafts rockably carried by the frame and provided with means transmitting the motion of one of the shafts to the other, brush heads slidably and non-rotatably carried by said shafts, a rug supporting means, and means to rock said motion transmitting shafts and the brush heads carried thereby.

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