A. S. WYSONG.

PRINTING MACHINE.

APPLICATION FILED DEC. 20, 1920.

1,380,509. Patented June 7, 1921.

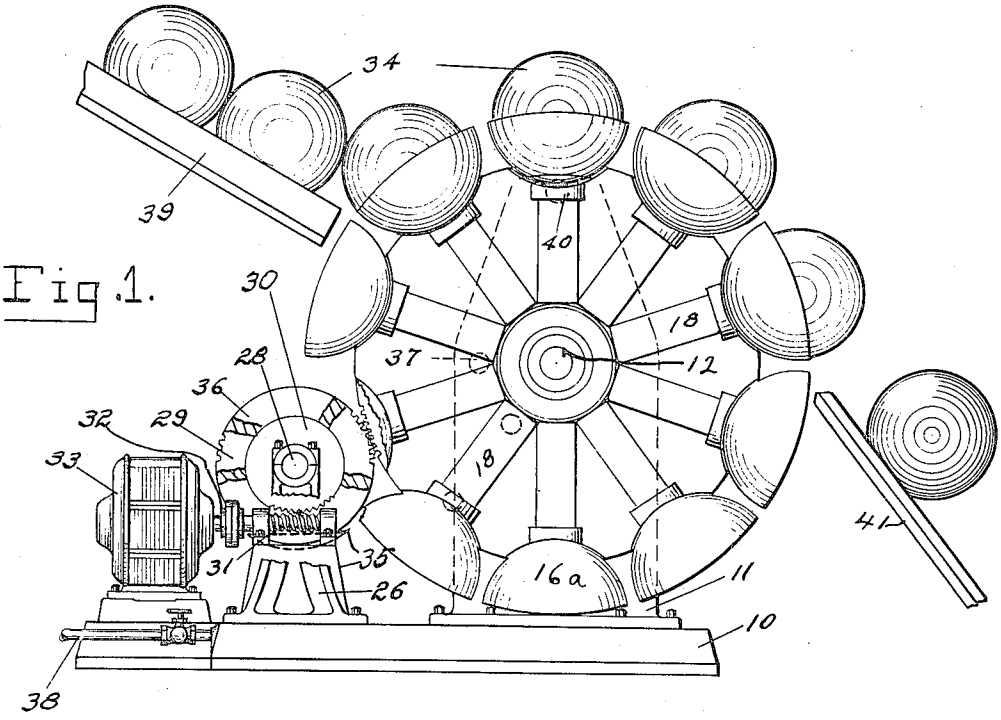


Fig. 1.

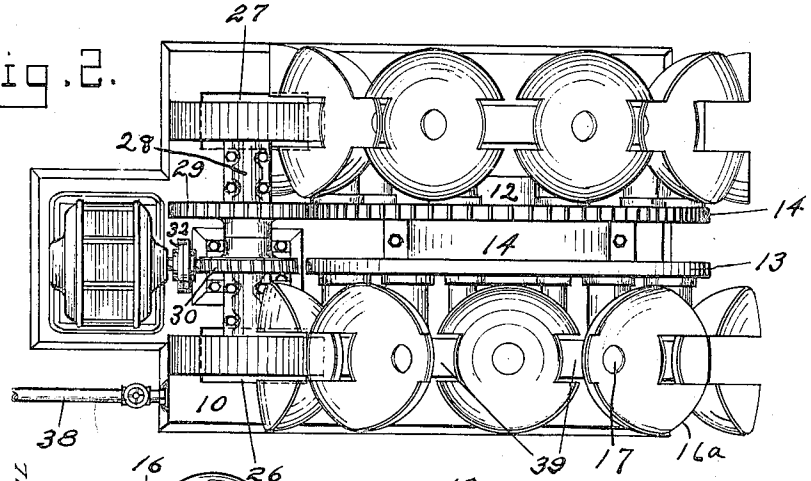


Fig. 2.

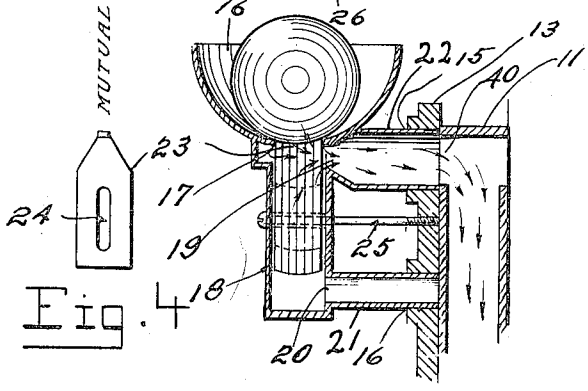


Fig. 4.

Fig. 3.

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PRINTING-MACHINE.

1,380,509. Specification of Letters Patent. Patented June 7, 1921.

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To all whom it may concern:

Be it known that I, ANSEL S. WYSONG, a citizen of the United States, residing at the city of Los Angeles, county of Los Angeles, State of California, have invented new and useful Improvements in Printing-Machines, of which the following is a specification.

In the drawings forming a part of this application Figure 1 is a side elevation with parts broken away. Fig. 2 is a top plan. Fig. 3 is an enlarged sectional detail of certain of the parts of the machine. Fig. 4 is a side elevation of a type.

Referring to the drawings 10 is the hollow cast base, preferably of iron from which rises a hollow pedestal or column 11. A shaft 12 is revolubly mounted in column 11 and on one side thereof is secured a disk 13 and on the other side is secured a disk 14 in each of which are ports 15 and 16. These ports are shown in full lines in Fig. 3. Disks 13 and 14 are counterparts except that 14 carries teeth on its periphery. A fruit holding bowl 16 has a port 17 in the bottom thereof (see Fig. 3). A tube 18 is secured to the bowl around port 17 and the outer end thereof is closed. In tube 18 near the bowl is a port 19 and near the end is a port 20. Tube 18 is in cross section a parallelogram but may be of any desired shape and will be called the bowl tube.

Small tubes 21 and 22 are connected to tube 18 and surround ports 19 and 20 respectively. The outer ends of tubes 21 and 22 fit into ports 15 and 16 and will be called connecting tubes. In tube 18 are mounted the printing type 23 which in the machine illustrated are six in number and carry the letters forming the word "Mutual". Each type has an elongated slot 24 through which passes a bolt 25 which also passes through tube 18 and screws into disk and holds the type slidably mounted in tubes 18 and the tubes removably secured to the disks. On base 10 are mounted standards 26 and 27 in which is revolubly mounted shaft 28. On shaft 28 is mounted pinion 29 which meshes with the teeth of disk 14 and pinion 30 which meshes with worm 31 on shaft 32 of motor 33, and when the motor is energized the fruit bowls are rotated. In the machine illustrated the characters are printed on oranges 34 by means of wax which is carried in a pan 35 which is heated by an electric heating device, not shown, so as to keep the wax, not shown, in a fluid state. A waxing roller 36 is mounted on shaft 28 and runs in the wax and carries a thin film of wax on its periphery and as the fruit bowls revolve the type carried by tube 18 of each bowl engage roller 36 and sufficient wax adheres to each type to print the character on the orange or other fruit or vegetable. As soon as the type in tube 18 have engaged roller 36 port 16 registers with port 37 in column 11 (said port being shown in dotted lines in Fig. 1) and tube 18 is connected to suction by means of pipe 38, said pipe being connected to a suction pump not shown, and the type are sucked away from roller 36. Each bowl 16 has slots in the sides thereof as shown at 39 (Fig. 2) to permit them to pass roller 36. It will be observed that I have shown a machine having two sets of fruit bowls and waxing rollers but the machine could have only one set of fruit bowls or a greater number than two sets. The fruit bowls are revolved upwardly from roller 36 and as each bowl passes chute 39 it receives an orange. When port 15 is brought into register with port 40 (shown in dotted lines in Fig. 1 and full lines in Fig. 3) in column 11 tube 18 is again connected to suction through port 15 and the orange is sucked down in the bowl and the type are sucked up in the tube thereby printing the characters in wax on the surface of the orange. On the further revolution the orange falls out of the bowl upon slide 41. It will be observed that tube 18 is connected to suction only during the time that port 16 is passing port 37 and port 15 is passing port 40. Should any of the type stick, by removing a bolt 25 the fruit bowl and type can be quickly removed from the machine and a new bowl and type put in. By this construction a simple and efficient machine is provided for printing on citrus and other soft skinned fruits and vegetables. Changes may be made in the fruit bowl to adapt it to other than round fruit. By facing the port in the bottom of the bowl with flexible material, hard fruit like apples can be printed upon. In printing upon citrus fruits I prefer to use heated wax as the printing material, but ink or other material may be used.

Having described my invention I claim:

1. In a printing machine for printing on fruit, type; means to place printing material on the type; means to carry fruit and type; and suction means to cause the fruit

and type to engage, whereby the printing material on the type is transferred to the fruit.

2. In a machine for printing on fruits, a disk; fruit bowls carried by said disk; type carried by said bowls; means to place printing material on said type; and means to cause the type to engage fruit in the bowls and thereby transfer the printing material to the fruit.

3. In a machine for printing on fruits, a disk; fruit bowls having ports therein carried by said disk; tubes secured to said bowls; type carried by said tubes; means to place printing material on said type as said disk is revolved; and means to place said type under suction to cause the type to move first away from the bowls and later toward the bowl, whereby when fruit is in the bowl the printing material on the type is transferred from the type to the fruit.

4. In a machine for printing on fruit, a base, a hollow column having ports therein; disks mounted on said shaft, said disks having ports therein adapted to be brought into register with the ports in the column, there being a disk on each side of said column; gear teeth on the periphery of one of said disks; fruit bowls having ports in the bottoms and slits in the sides thereof; tubes connected to said bowls and surrounding said ports, tubes having ports in the sides thereof one near the bowl and one near the outer end, said end being closed; connecting tubes surrounding the ports in the bowl tubes and adapted to enter ports in the disks; means to removably secure said connecting tubes to said disks; type slidably mounted in said bowl tubes; means to place printing material on said type; means to revolve said disks; and means to place said type under suction to cause the type to move away from and later toward the bowl, whereby when fruit is in the bowl the material on the type is transferred to the fruit.

In witness that I claim the foregoing I have hereunto subscribed my name this 11th day of December, 1920.

ANSEL S. WYSONG.