January 30th, 1954

Dear Schuyler:

Enclosed are some drawings I intended to send with my last letter. From time to time since I was over at your factory I have been thinking about the design of the drive mechanism for your vertiblind.

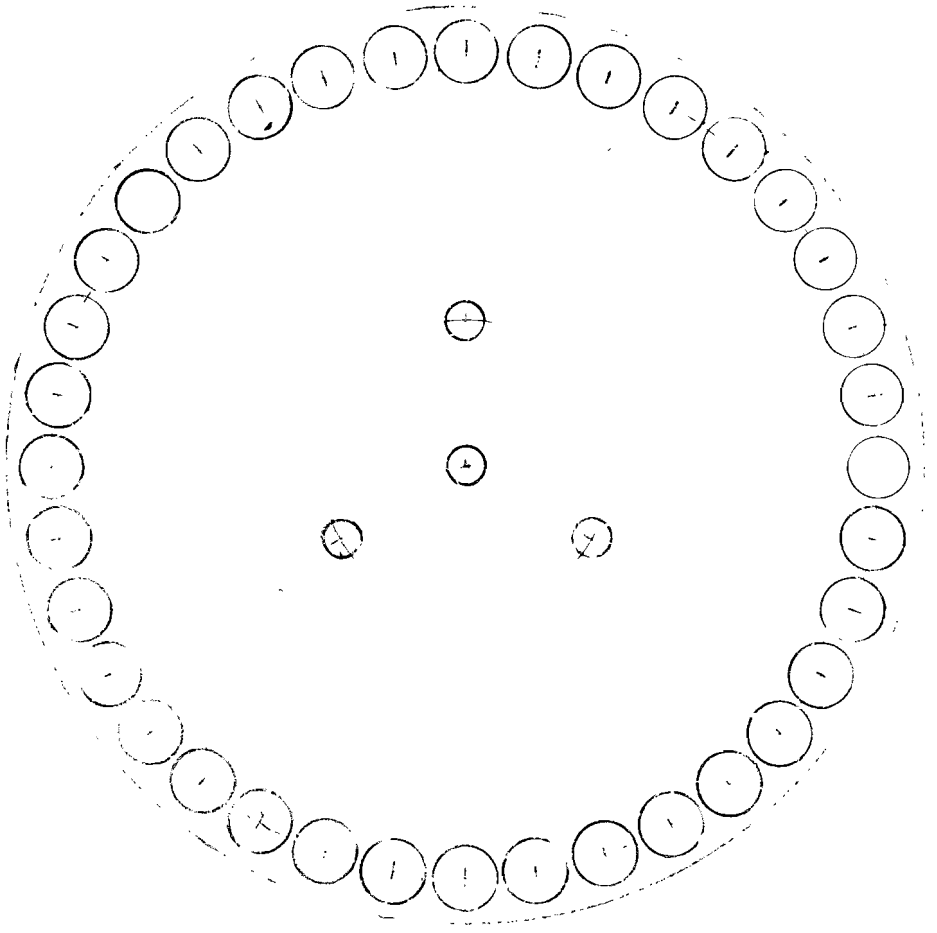
The simplest thing I can think of is shown on the enclosed drawings. There are only three main parts, a wheel and two springs. One center pin like you now have in the other end of the roller plus three round headed wood screws are also required.

The system gives a one to one ratio and provides a large drive wheel so that you can probably use a cord instead of a bead chain. The more fingers there are on the wheel the better the traction between the cord and the wheel. Also the larger the wheel the better the whole thing will work. Felt pads glued to the springs provide the necessary friction to prevent the roller from becoming unrolled when part way up and will hold the roller in any desired position necessary for swinging the vertiblinds. By bending the springs any desired amount of tension may be secured. It is not imperative that the end of the roller be sawed exactly at rightangles to the axis. However the closer this condition is approximated the better the system will function. Perhaps by wrapping the felt around both sides of spring it will be easier to keep it glued on. Only the front side provides traction however. I believe the wheel can be punched out in one operation from black iron plate and then painted. The springs may be black iron and welded to end plate before painting. Putting felt on will be last operation.

If you will have Mike make one of these up I'll be much interested to learn how it works. He can slot the edge of the wheel with a saw and bend the fingers by hand. I had to guess at the dimensions shown on the sketches. You may have to alter them a bit.

If for any reason you don't like one end the cord coming out back of blind I have another design whereby both ends of cord are in front which is better than the one I sketched up in Geneva but it still requires gears. Alternately, you could mount a small idler pulley in front and underneath the main wheel which would bring the back side of cord out to front.

Lets hear what Mike thinks of this design.



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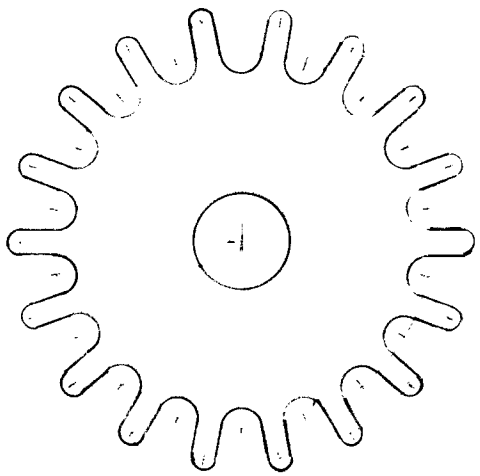

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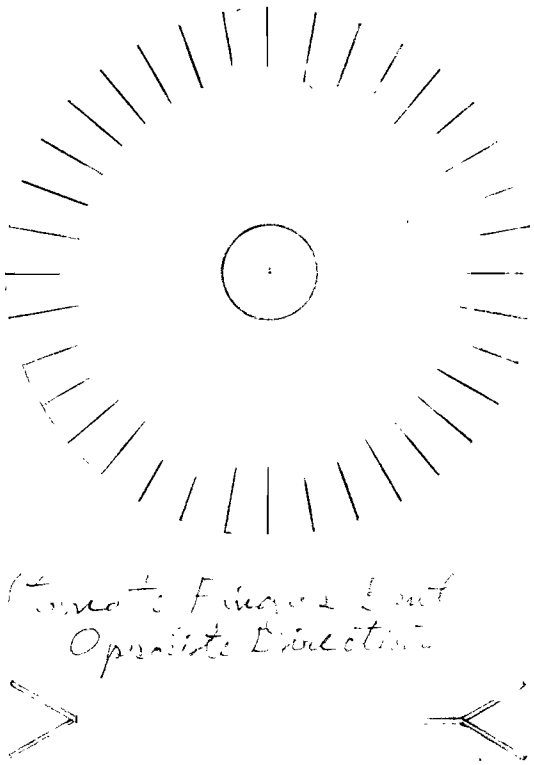
Alternate Fingers Look
Opposite Direction