This invention relates to facsimile scanning mechanisms, such as are employed in facsimile telegraph transmitters or receivers, wherein the material to be transmitted or recorded upon is mounted on a drum for scanning purposes, the drum being driven rotationally and advanced endways. It is usual to hold the material to the drum either by longitudinal clips or by means of a transparent wrapper. In either case it is desirable for the drum to be held in a particular rotational position during the loading operation in order that the clips are placed in their correct position on the drum, or in the case of the transparent wrapper referred to, that the free end of the wrapper is presented in a convenient position for manipulation and loading.

The invention consists of a facsimile scanning mechanism including a scanning drum in which means are provided for arresting the scanning drum in a desired rotational position at the end of a scanning sequence. The invention will be further described with reference to the accompanying drawings in which

Figure 1 shows one arrangement for the invention to effect.

Figure 2 shows a possible addition to the arrangement of Figure 1. Figure 1 illustrates the arrangement applied to an elementary scanning mechanism where the message drum 1 rotates upon a stationary lead-screw 2 and is driven rotationally by means of a gear wheel 3 fixed to the drum, and driven by a pinion 4 which is in turn driven by a synchronous motor 5. When the drum rotates it is moved endways by a bar nut 6 pivotally mounted on one end of a rod 6a extending through the drum engaging with the lead-screw 2, in order that the drum surface may be scanned by the optical head 7. When the bar nut 6 runs off the thread of the lead-screw 2 the drum will have reached the end of its traverse.

A start-stop lever 20 has an extension 21 to operate rod 23 against the contacts of a changeover switch shown diagrammatically. With the start-stop lever 20 in the start position, current is fed to the motor 5 to rotate the drum 1 in the direction shown by arrow A. Meshing with the pinion 4 is an auxiliary gear wheel 24 which rotates in the same direction and at the same speed as the drum. Pivotally mounted on the side of gear wheel 24 is an abutment lever 25 which is urged against stop 25a by tension spring 26. A stop latch 27 is mounted on pin 28 and is urged into the path of abutment lever 25 by tension spring 29. While scanning is in progress gear wheel 24 revolves in the direction shown by arrow B and at each revolution abutment lever 25 forces stop latch 27 out of its path against the tension of spring 29. When scanning is finished start-stop lever 20 is moved to the stop position and rod 23 actuates the changeover switch to reverse the direction of rotation of motor 5. The reversed torque applied by motor 5 rapidly brings drum 1 to a standstill and then reverses its direction for part of a revolution until abutment lever 25 engages stop latch 27. Tension spring 26 absorbs the kinetic energy of the revolving parts and the drum and motor are brought to rest. Drum 1 will now be held in its rest position by the turning movement of motor 5 acting against stop latch 27. This position is convenient for fixing clips or operating a wrapper and for operating nut-release lever 13 to restore the drum to its starting position.

Movement of the start-stop lever 20 to the start position to commence scanning, will operate the changeover switch to cause the motor to drive the drum in the scanning direction and to feed along the lead-screw 2.

In the arrangement shown in Figure 2 for operating the start-stop lever 20, the drum 1 is covered by hinged lid 30 during the time that scanning is taking place, in which case the hinged lid is provided with a cam projection 31 which moves the start-stop lever 20 into the start position when the lid is closed and allows lever 20 to move to the stop position under influence of spring 32 when the lid is raised.

The operational sequence will be that in the rest condition, lid 30 will be raised in the open position, and drum 1 will be stationary and at the right-hand end ready to be loaded.

After loading the lid is lowered to the closed position which will actuate the start-stop lever to drive the drum in the normal direction and traverse. When scanning is complete the drum continues to rotate without further traversing. The lid is opened, the motor reverses and the drum is held in its rest position and is re-set manually to the right hand position ready for unloading and re-loading.

We claim:

1. Facsimile scanning mechanism comprising a scanning drum, electrical driving means for said scanning drum, switch means to reverse the direction of rotation of said driving means, stop means to stop said drum in a desired rotational position, said stop means including a spring to hold said drum in a desired rotational position, said stop means including a closing means for said drum, and a lever means for actuating said closing means.

2. Facsimile scanning mechanism, as claimed in claim 1, wherein said stop means include resilient means to absorb the kinetic energy of the moving parts when said stop means operate.

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