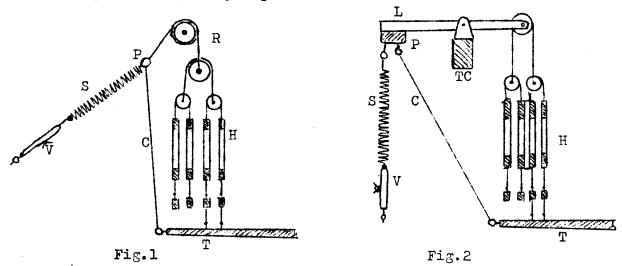
SHED REGULATORS ON COUNTERBALANCED LOOMS

The merits of CB looms are unquestionable. They give a positive shed (opening in two directions) with a minimum of effort, and from this point of view can be only compared with double-tie-up jack-looms, but they are simpler to handle. Unfortunately they work well on balanced tie-ups only. On all other tie-ups the shed opens too high or too low, thus making the weaving hardly possible particularly with linen. To overcome this difficulty we have designed so called "shed regulators" which bring any shed to the proper position. They are simple and inexpensive to make, but they work well only with a small number of frames.

If a shed opens too low, the harness should be raised. When the shed opens too high, the harness should be lowered. Let's the hang the whole harness (H,fig.l) on an additional roller (R) and regulate the position of the harness with a cord (C) which extends from the tip of the treadle (T) to a horizontal piece of wood (P) connected with the harness over the top roller. To balance the weight of the harness, springs (S) are used. These are ordinary screen door springs.



If the harness is hung from a top-castle (heddle-bearer), the shed-regulator consists of two levers (L,fig.2) propped on the top-castle (TC) and joined at the back with a transversal piece (P). The front ends of the levers support the harness, the back ones are connected with the treadles.

The cords C must be easily adjustable, since their length regulates the position of the shed; when the shed opens too high the cord should be made longer and vice versa. To get a smooth performance, we must have the tension of the springs adjustable, too. This is done with a short cord (V) which ties the spring to the loom frame. The shorter this cord the greater the tension and the higher will the harness hang in the neutral position. The cords C pass among the warp ends, and they should go in a nearly vertical direction, so as not to rub against the warp. They are tied only after the warp is threaded and tied-in.

