

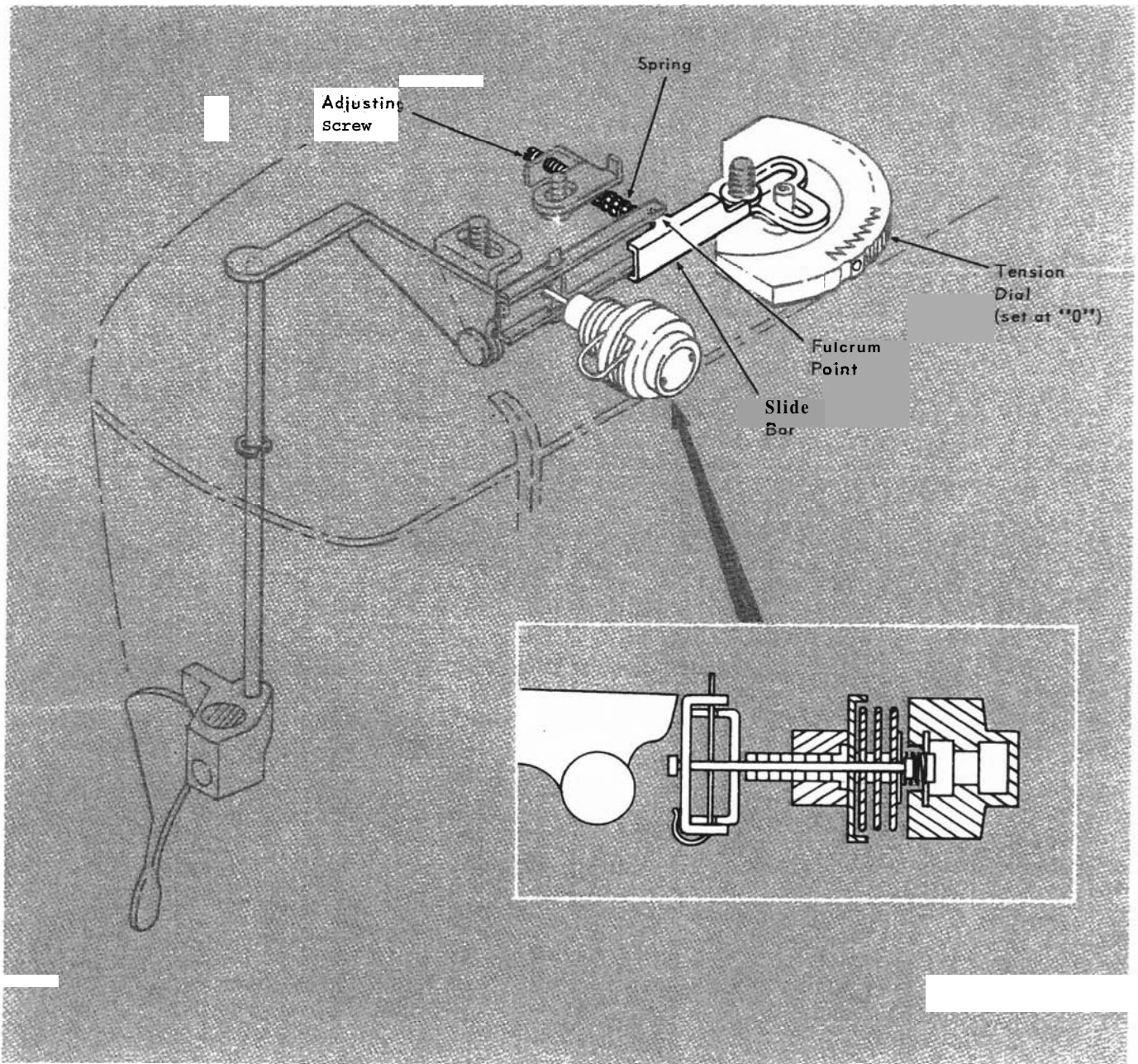
THEORY of OPERATION

TOP COVER TENSION

A correctly set needle thread tension is essential for good stitching performance on all sewing machines. Because of the many variables which can affect the thread tension, the 750 Series machines were designed with a new Universal **Type** thread tension assembly which has a numerically marked tension dial to eliminate guesswork when duplicating tension settings. A single turn of this dial enables the operator to change the tension setting **from a minimum of 0 to a maximum of 9.**

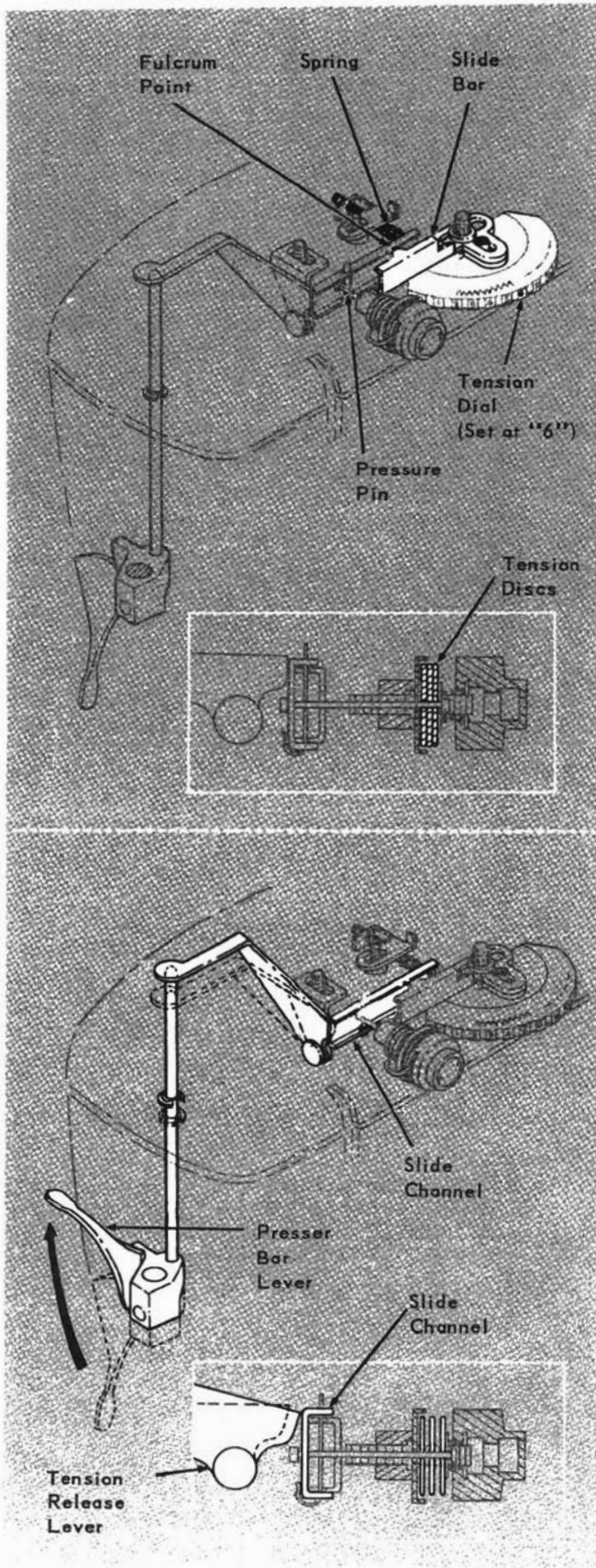
All pressure in the tension system is initiated by the spring on the **adjusting** screw which is pre-set at the **factory.** **DO NOT TOUCH ADJUSTING SCREW.** **Although the** spring tension is constant, thread tension varies as the fulcrum point of the slide is moved. Moving the fulcrum point increases the leverage of the slide channel.

In the "0" position, the fulcrum point is directly in front of the spring. At this point, there is minimum thread tension.



THEORY of OPERATION

TOP COVER TENSION (Cont.)



As the tension dial is turned toward "9", the fulcrum point of the slide bar moves, and the pressure from the spring is transmitted through the slide channel to the pressure pin. This pin pulls the tension discs closer together to increase resistance on the thread as it passes between the discs.

Thread tension is automatically released, regardless of the tension dial setting, when the presser bar lever is raised. The tension release lever moves against the slide channel, relieves pressure on the pressure pin and allows thread to slide freely through the discs.