



Figure 16.—AN ENLARGEMENT of the stitching area. (Smithsonian photo 45525-B.)

problem and that sewing machines were being manufactured for sale. The sixth United States sewing-machine patent (No. 5,942) had been issued to John A. Bradshaw on November 28, 1848, for a machine specifically stated as correcting the defects in the E. Howe patent. Bradshaw did not purport that his machine was a new invention. His specifications read:

The curved needle used in Howe's machine will not by itself form the loop in the thread, which is necessary for the flying bobbin, with its case, to pass through, and has, therefore, to be aided in that operation by a lifting-pin, with the necessary mechanism to operate it. This is a very bungling device, and is a great incumbrance to the action of the machine, being an impediment in the way of introducing the cloth to be sewed, difficult to keep properly adjusted, and very frequently gets entangled between the thread and the needle, by which the latter is frequently broken. This accident happens very often,

notwithstanding all the precaution which it is possible for the most careful operator to exercise; and inasmuch as the delay occasioned thereby is very considerable, and the needles costly and difficult to replace, it is therefore very important that their breaking in this manner be prevented, which in my machine is done in the most effectual manner by dispensing with the lifting-pin altogether, the loop for the flying bobbin to pass through being made with certainty and of the proper form by means of my angular needle moved in a particular manner just before the flying-bobbin case is thrown. The shuttle and its bobbin for giving off the thread in Howe's machine are very defective . . . my neat and simple bobbin-case . . . gives off its thread with certainty and uniformity . . . The baster-plate in the Howe machine is very inconvenient and troublesome . . . in my machine . . . the clamp . . . is a very simple and efficient device. . . . The Howe machine is stationary, and the baster-plate or cloth-holder progressive. The Bradshaw machine is progressive and the cloth-holder stationary.