

Figure 59.—SHANK's patent bobbin winder, 1870.  
(Smithsonian photo P-6398.)

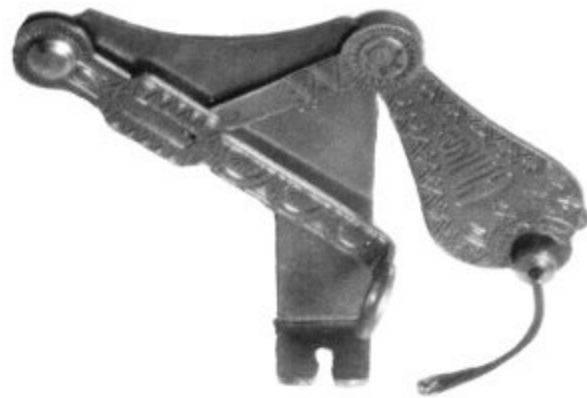


Figure 62.—ROSE's patent embroiderer, 1881.  
(Smithsonian photo P-6399.)

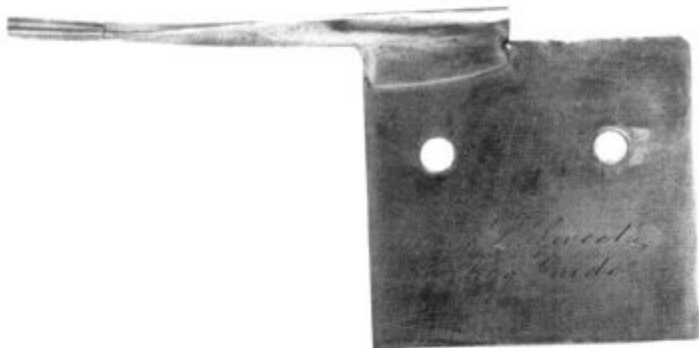


Figure 60.—SWEET's patent binder, 1853.  
(Smithsonian photo P-6396.)

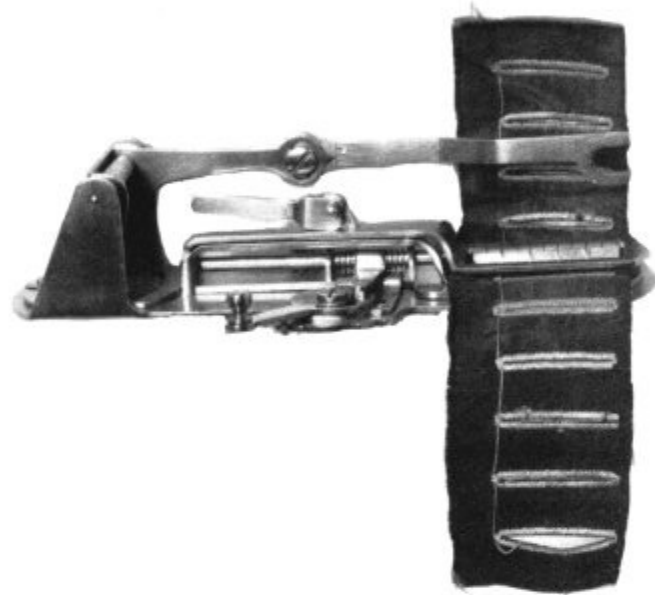


Figure 63.—HARRIS' patent buttonhole attachment,  
1882. (Smithsonian photo P-63103.)



Figure 61.—SPOUL's patent braid guide, 1871.  
(Smithsonian photo P-63102.)

industries. The repetitive need for machine needles, the development of various types of attachments to simplify the many sewing tasks, and the ever-increasing need for more and better sewing thread—the sewing machine consumed from two to five times as much thread as stitching by hand—created new manufacturing establishments and new jobs.

The method of manufacturing machine needles did not differ appreciably from the method used in

making the common sewing needle, but the latter had never become an important permanent industry in the United States. Since the manufacture of practical sewing machines was essentially an American development and the eye-pointed needle a vital component of the machine, it followed that the manufacture of needles would also develop here. Although such a manufacture was established in 1852,<sup>83</sup> foreign imports still supplied much of the

<sup>83</sup> CHARLES M. KARCH, "Needles: Historical and Descriptive," in *Twelfth Census of the United States, 1900*, vol. 10, *Manufactures*, Part 4, Special Reports on Selected Industries (United States Census Office: Washington, D.C., 1902), pp. 429-432.