

Figure 40.—A DOLPHIN sewing machine based on Clark's patent of 1858. This design was first used by T. J. W. Robertson in 1855, but in his patent issued on May 22 of that year no claim was made for the machine design, only for the chainstitch mechanism. The same style was used by D. W. Clark in several of his chainstitch patents, but he also made no claim for the design, stating that the machine "may be made in any desired ornamental form." The dolphin-style machines are all chainstitch models of solid brass, originally gilt. Although only about five inches long, they are full-size machines using a full-size needle. (Smithsonian photo 45505.)



to make a chainstitch. At the forward end of the main shaft was a hook which, as it rotated, carried the loop of needle-thread, elongated and held it expanded while the feed moved the cloth until the needle at the next stroke descended through the loop so held. When the needle descended through the first loop, the point of the hook was again in position to catch the second loop, at which time the first loop was cast off and the second loop drawn through it, the first loop having been drawn up against the lower edge of the cloth to form a chain.

A Gibbs sewing machine, on a simple iron-frame stand with treadle, sold for approximately \$50 in the late 1850s,<sup>69</sup> while a Wheeler and Wilson<sup>70</sup> machine or a Grover and Baker<sup>71</sup> with the same type

of stand sold for approximately \$100. After the introduction of the Gibbs machine, the Singer company<sup>72</sup> brought out a light family machine in 1858 that was also first sold for \$100. It was then reduced to \$50, but it was not popular because it was too light (see discussion of Singer machines, pp. 34-35). In 1859, Singer brought out its second, more successful family machine, which sold for \$75.

Like the other companies licensed by the "Combination," Willcox and Gibbs company paid a royalty for the use of the patents it held. Although the Willcox and Gibbs machine was a single-thread chainstitch machine and the company held the Gibbs patents, the company was required to be licensed to use the basic feed, vertical needle, and other related

<sup>69</sup> *Scientific American*, vol. 15, no. 21 (January 29, 1859), p. 165, and Willcox and Gibbs advertising brochure, 1864.

<sup>70</sup> *Scientific American*, vol. 12, no. 8 (November 1, 1856), p. 62.

<sup>71</sup> *Ibid.*, vol. 1, no. 19 (November 5, 1859), p. 303.

<sup>72</sup> *I. M. Singer & Co.'s Gazette*, vol. 5, no. 4 (March 1, 1859), p. 4, and a brochure, *Singer's New Family Sewing Machine* (in Singer Manufacturing Company, Historic Archives).