

## 5. The Weed Sewing Machine Co., Hartford, Conn., U. S.

SHUTTLE SEWING MACHINE.—THE NEW WEED SHUTTLE SEWING MACHINE EMPLOYING A STRAIGHT NEEDLE AND NEEDLE-BAR CONNECTED BY A LINK WITH A CRANK ON THE END OF A HORIZONTAL SHAFT IN THE OVERHANGING ARM. THE NEEDLE-BAR OPERATING SHAFT IS CONNECTED BY A LINK WITH, AND HAS A ROCKING MOTION IMPARTED TO IT BY MEANS OF A CRANK ON A LOWER ROTATING SHAFT. THE SHUTTLE, SUSTAINED BY A CARRIER, IS RECIPROCATED IN THE DIRECTION OF THE FEED BY A CRANK AND LINK CONNECTED WITH THE ROTATING SHAFT, AND THE FOUR-MOTIONED FEED IS MOVED POSITIVELY.

*Report.*—An excellent shuttle machine, possessing originality and simplicity of constructive detail. Commended for fine quality of workmanship and materials, and for great adaptability to both cloth and leather stitching.

## 6. Wilson Sewing Machine Co., Chicago, Ill., U. S.

WILSON'S FAMILY SEWING MACHINE.—A SHUTTLE MACHINE EMPLOYING A SHUTTLE RECIPROCATED TRANSVERSELY TO THE FEEDING MOVEMENT OF THE FOUR-MOTIONED FEED; A STRAIGHT NEEDLE AND NEEDLE-BAR MOVED BY A VIBRATING ARM, AND ACTUATED BY A CRANK-PIN WORKING IN A HEART-SHAPED CAM MADE IN THE LOWER END OF THE VIBRATING ARM BELOW THE CLOTH SUPPORT.

*Report.*—Commended as a good machine for family use, for simplicity of construction, adaptability to a variety of cloth-work, for good work performed, and for workmanship and materials.

## 7. The Howe Machine Co., Bridgeport, Conn., U. S.

SHUTTLE SEWING MACHINES.—A SHUTTLE SEWING MACHINE, BOTH THE NEEDLE AND SHUTTLE BEING MOVED BY VIBRATING LEVERS, ACTUATED BY GROOVED HUB-CAMS ON ROTATING SHAFTS.

*Report.*—Commended for excellency of stitch on cloth and leather.

## 8. J. &amp; W. Lyall, New York, N. Y., U. S.

SEWING MACHINES.—A LOCK-STITCH SHUTTLE MACHINE IN WHICH THE VERTICAL NEEDLE-BAR IS RECIPROCATED FROM A ROTATING SHAFT BY AN EPICYCLOIDAL MOVEMENT.

*Report.*—The most rapidly-running shuttle machine.

## 9. Willcox &amp; Gibbs Sewing Machine Co., New York, N. Y., U. S.

SEWING MACHINE.—A CHAIN-STITCH SEWING MACHINE EMPLOYING A STRAIGHT NEEDLE AND A ROTATING HOOK.

*Report.*—Commended for high quality and great rapidity of work, simplicity of parts, ease of motion, superior workmanship, and for its automatic tension adaptable without alteration to all kinds of thread applicable to the machine.

## 10. The Davis Sewing Machine Co., Watertown, N. Y., U. S.

SEWING MACHINE.—A SHUTTLE SEWING MACHINE EMPLOYING A CO-OPERATING VERTICAL UPPER AND NEEDLE-FEED AND LIFTING PRESSER, AND A SHUTTLE SUPPORTED IN A CARRIER AT THE END OF A HORIZONTALLY-VIBRATING ARM ACTUATED FROM A VERTICAL LEVER OPERATED BY A CAM ON A ROTATING SHAFT IN THE OVERHANGING ARM.

*Report.*—A co-operating upper vertical and needle-feed and shuttle machine, adapted to a variety of thin and thick work. Commended for good work, workmanship, and originality.