

## New Silk Loom

### Box Motion, Dobby, and Cone Harness Motion

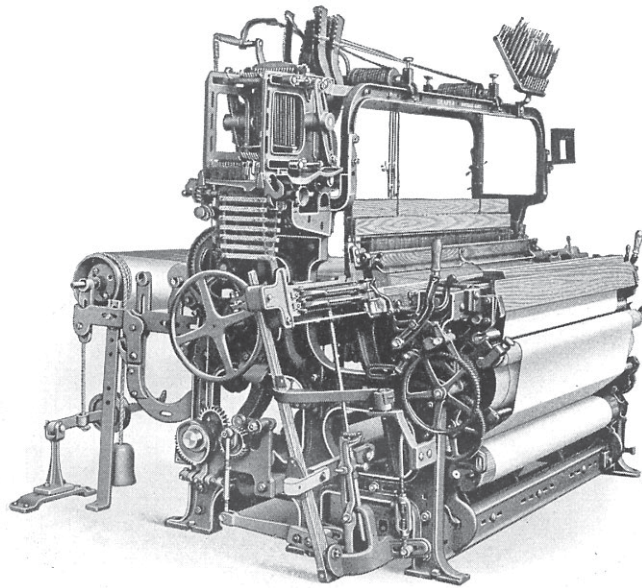
Draper Corporation, Hopedale, Mass., have brought out a new patent silk loom which is known as Model S-4. It is commonly built 52 or 54 inches between swords. This loom embodies the essential features of a machine for the weaving of silk including a rigid frame with the least possible vibration, a smooth even pick, accurate and properly lined up take-up roll and cloth roll, careful finish throughout with special care on all parts that touch the silk, and every modern device that will assist

the weaver in producing a greater quantity of first quality goods.

This loom was designed and built as the result of two generations' experience to produce weaving machinery to meet the exacting demands of hundreds of fabrics. The loom has a reinforced frame staunch enough to eliminate all wink. The breast beam is strengthened with a reinforcing steel plate. The take-up roll stand is fastened to the breast beam with a bolt which acts as additional reinforcement.

The bearings for the sand roll and cloth roll are line-reamed in place, insuring easy rolling bearings with a minimum of play. The sand rolls are so designed and sealed that moisture cannot enter and cause warping. This contributes to the effectiveness of their positive take-up, an important construction feature of a silk loom.

rod stand of the split or clamping type and a replaceable bronze bushing in the lay end to take the inner end of the picker race rod, which has been tapered. By these means the race rod may be held firm at all times without the usual looseness and vibration due to wear. A steady, smooth pick is insured by extra crank and bottom shaft bearings. Those on



New S-4 Model Patent Silk Loom with 2 x 1 Box Motion and Dobby

The driving parts may be quickly and easily adjusted to five different positions on the crank shaft to minimize the effect of wear, or replaced when worn or broken. This is effected by a driving assembly bushing to which the friction disc, crank shaft gear, and brake wheel or hand wheel are fastened by five half-inch bolts.

The special shuttle box, designed for long life and easy adjustment of the binder, has a replaceable binder pivot bolt bushing. This bushing takes all the wear of these parts, is adjustable to overcome the effect of wear and is easily replaced when worn out. It contributes its share to make this a smooth picking silk loom. An even beat-up of the cloth is the natural result of a smooth picking. They have made it doubly sure by a specially constructed spring crank arm.

A straight pick is always insured by a picker

rod stand of the split or clamping type and a replaceable bronze bushing in the lay end to take the inner end of the picker race rod, which has been tapered. By these means the race rod may be held firm at all times without the usual looseness and vibration due to wear. A steady, smooth pick is insured by extra crank and bottom shaft bearings. Those on

the crank shaft are just inside of the cranks, and those on the bottom shaft are about the same distance from the outer boxes. Roller Bearings. The frame of the loom is so constructed that the loom may be built with roller bearings on the main shafts. Provision is made for two on the crank shaft, two or four on the bottom shaft, two on the rocker shaft and one in the dobby driving gear bracket.

Patent Box Motion. They furnish either a side plate box motion, operated by the dobby, or a sliding gear type of box motion which may be used either as a filling mixer with no connection with the head motion or for pattern work with dobby connection to operate the sliding gears. The simplicity of this box motion is one of its notable features.

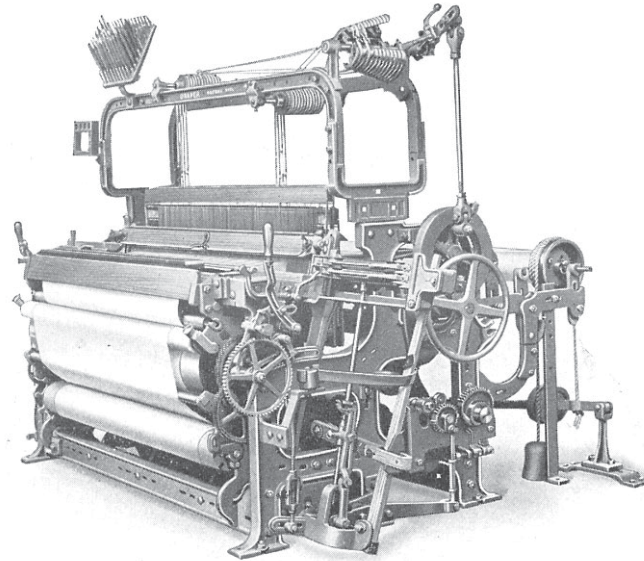
Patent Movable Reed. A patent movable reed that is positively raised and lowered

through a distance of  $\frac{5}{8}$  of an inch during the weaving of approximately  $21\frac{1}{2}$  yards of cloth makes it practically impossible to have cut reeds. Any given point on the reed dent is presented to the fell of the cloth not more than twice a day. The reed frame is strong and secure, preventing lost motion or any loosening of the reed.

Cone Harness Motion. Where a mill

possible waste.

To Prevent Starting Marks. The feeler mechanism stops the loom with the shuttle in the plain box end—an original feature that is covered by patents. This is a big aid to the weaver. It prevents turning the loom over from one to three times to find the pick. It prevents starting marks that come from turning the loom over.



New S-4 Model Patent Silk Loom with Cone Motion for Taffeta Weaves

has a staple product that can be woven on 12 harnesses or less, the cone harness motion for taffeta weaves is very effective. Its simplicity and the few parts to wear or get out of order make it a delight to weavers and fixer and contribute, by steady running and a minimum of lost time, to the profits of the mill. It has a levelling device by means of which the harness can be levelled to draw in an end. Applications for patents on these improvements have been filed. For other than taffeta weaves a dobby with a capacity up to 20 harnesses may be used.

The Midget Patent Feeler. It is a new idea in the weaving of silks to assist the weaver by using a feeler to stop the loom just before the filling runs out and thereby prevent a looped pick. The Midget feeler is a simple loom feeler, most effective. It leaves the least

Another feature to prevent starting marks is the special arrangement of the pawls of the take-up. Whenever the shipper handle is off, the take-up pawl is disconnected so that the lay may be moved or the loom turned over without any effect upon the take-up. The hold back pawl, meanwhile, holds the train of gears steady, ready to resume an unbroken and even take-up when the loom starts weaving again. The take-up is built with helical gears whenever they are specified. With no backlash they help to avoid starting marks, bars and stars.

Removable Cloth Roll. A new cloth roll that may be released to allow the direct removal of the silk without rewinding on a take-off roll saves time and increases the product of the loom. A patent application has been filed on this device.