

A NEW FOOT LATHE.

It is an important matter for an amateur or mechanic doing work with small tools to procure such implements as will be a source of profit, pleasure and satisfaction, instead of lasting regret that tools of another make were not purchased. Among such tools a lathe is an important item, and once purchased is not likely to be soon exchanged. A lathe which appears to fulfil all reasonable requirements is shown in the accompanying engravings. The chief novelty of this lathe is its cylindrical bed, which possesses many advantages which will be apparent to our readers. The bed is 36 inches long, and the head, tail, and tool stocks are bored to fit it.

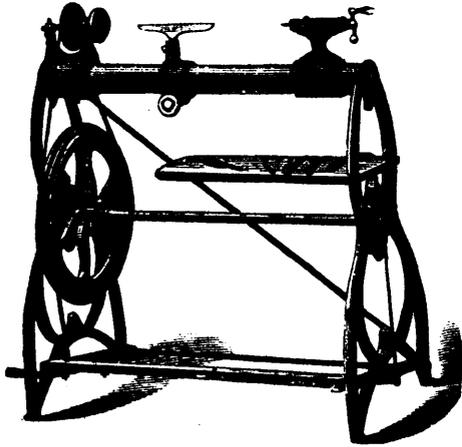


FIG. 1.

lathe, resting in Babbitted journals, and has a crank on each end, thus avoiding any unequal strain upon the frame, and securing steadiness. It runs lightly and freely, with high speed.

This lathe has three useful attachments: a circular saw attachment, a bracket moulding device, and a scroll saw. The circular saw attachment, shown in Fig. 2, is easily applied, and the table, which is a light iron one, dressed up true, is supported by a standard set in the tool stock, and admits of being rocked and tipped so as to saw any bevel desired. It has two light running metal gauges for slitting and cutting off.

The scroll saw attachment (Fig. 3) is very simple, and useful for sawing all kinds of scroll and fret work. It is readily attached or detached without pulling the lathe in pieces. The driving

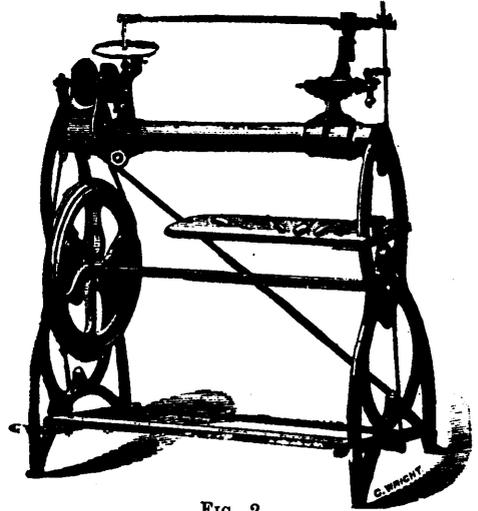


FIG. 2.

The head stock is fastened permanently with a set screw. The tail stock traverses the whole length of the bed, and is kept in line with front center by a groove in the bed, and is readily fastened at any point by turning a hand screw, which is on the back side of lathe and not shown in cut. The tool stock also encircles the bed, moves back and forth readily, and rocks to and from the work. It is sawed open on the bottom, and provided with a screw, which is sufficient to hold it at any point by a single turn of the hand. It has a steel mandrel, two steel centers, two T rests, and a tool shelf.

attachment of the saw has a perpendicular stroke, which is important in the perfect working scroll saw. The spring and tension are firmly attached to the tail stock without the removal of a bolt or screw. The table tilts 45° without losing its central position, and the swing around under the arm is 25 inches.

The attachment shown in Fig. 4, for moulding and ornamental brackets and other scroll work, adds, with very little expense, a very desirable feature to the foot lathe. The standard of the table is threaded, and is adjusted up and down by turning it around. The capacity of the cutter is such as to follow the scroll

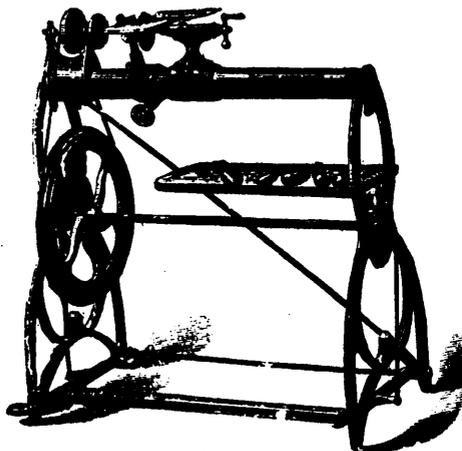


FIG. 3.

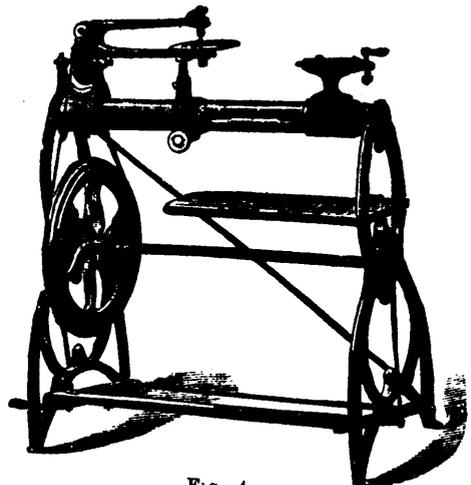


FIG. 4.

It has a brass box in front journal, and true bored iron bearings throughout. It has a three cone grooved pulley, turned up true, and polished. The balance wheel is turned and grooved to correspond with cone pulley, and is weighted to counter-balance the treadle. The crank shaft runs the whole length of

saw into very delicate points, and open and mould them so as to give the work a more open and light, as well as a more ornamental appearance. The cutters have double cutting edges, and cut as well when revolving one way as the other. — *Scientific American.*