

D. D. Sacket.
Braiding Mach.

Nº 1,476.

Patented Jan. 22, 1840.

Fig. 5.

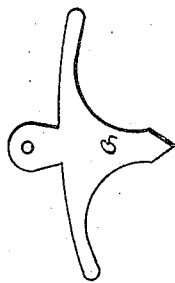


Fig. 2.

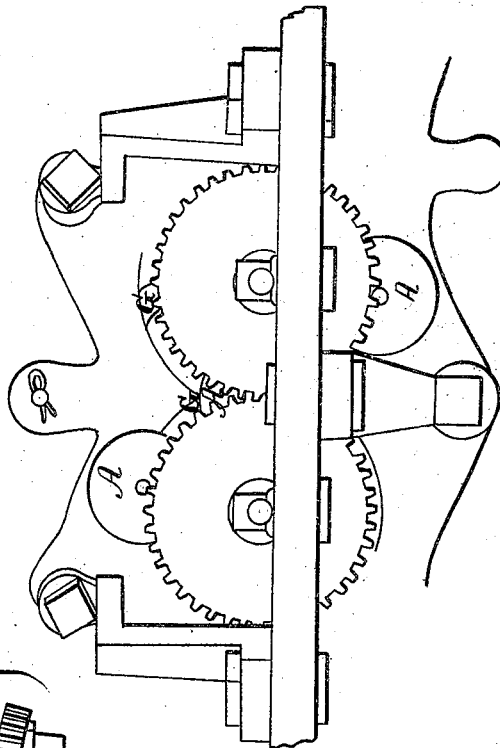


Fig. 4.

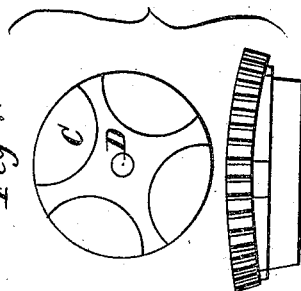
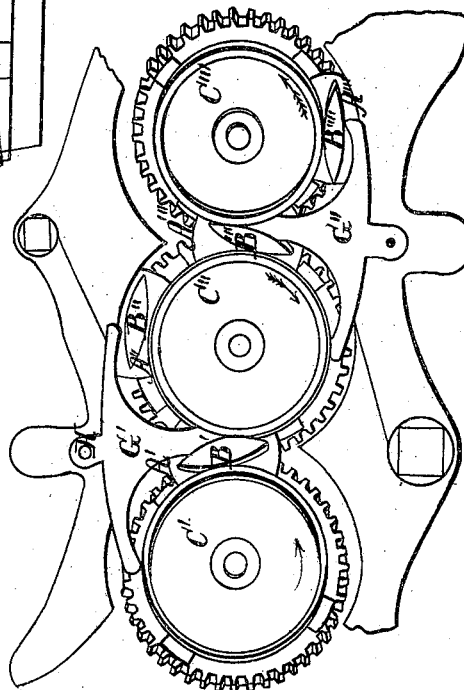


Fig. 1.



UNITED STATES PATENT OFFICE.

DUDLEY D. SACKET, OF WESTFIELD, MASSACHUSETTS.

BRAIDING-MACHINE.

Specification of Letters Patent No. 1,476, dated January 22, 1840.

To all whom it may concern:

Be it known that I, DUDLEY D. SACKET, of Westfield, Hampden county, State of Massachusetts, have invented a new and useful Improvement in Braiding-Machines, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

In the original braiding machine, patented by John Thorp nearly twenty years ago, there existed serious defects, such as the liability of the racers becoming deranged by dodging the cant wire and also in the complexity of the racer itself, together with the immense friction in the running of the racer and likewise the difficulty of securing the spool wire to the racer. There existed likewise defects in the subsequent improvement on said Thorp's machine invented and patented by Seymour Halliday, such as propelling the racer by a stud projecting from the back of the racer which caused it to render; likewise in its liability to dodge the point of the form and circle; and the existence of the evil arising from the rubbing or friction of the racer in passing over the stationary oval forms.

My improved machine for which I now solicit Letters Patent is designed to obviate the before mentioned defects.

The nature of the invention and improvement consists in running the racers in such a manner and by such means as to prevent them from taking the wrong course and thereby becoming deranged or misplaced; which is effected by suspending a winged fly guide at the top and bottom of each changing place of the racers attached to the inside of the upper and lower circles by a bolt passing through the head of the winged fly guide into the circle so as to allow it to vibrate on said bolt at every passage of the racer between the guide and form and thus prevent the derangement or wrong running of the racer. Also in having a number of round smooth wheels or forms attached to the revolving gearing; which gearing being from one-fourth to half an inch thick and having a projection starting at the base or roots of the gearing extending inward half the thickness of the gearing and in that projection forming four cavities or scallops of equal size from which the racers receive their motion—the racer being formed with a round plate the section of a sphere attached to the

shoe of the racer, which plate enters said cavities.

To enable persons skilled in the art to make and use this improvement I will proceed to describe its construction and operation.

Figure 1 is a vertical section of the inside of the machine showing part of the upper and lower "circles"—several of the revolving forms or wheels—racers and spools—and winged fly guides. Fig. 2 is a vertical section of the outside of the machine showing part of the circular rim—upper and lower circles—knees—racers—gearing—studs, &c. Fig. 3 is a perspective view of one of the racers detached from the machine. Fig. 4 is a sectional view of one of the revolving forms or wheels, showing the cavities therein. Fig. 5 represents one of the winged fly guides.

The circular rim, knees, upper and lower circles, gearing, arbors and spools being made, arranged and operated like those in the machines referred to, which are well known, need not therefore be described.

My improved racer A consists of a circular back plate A made concave on the face toward the shoe and convex on the outside, cast with the shoe B, which plate is brought to nearly a sharp edge in front to prevent its catching on the circle, said racer being propelled by a carrier or revolving form C of a peculiar construction attached to the gear and revolving with it. This carrier wheel or revolving form C is made by placing a scalloped plate D against the concave face of the cog wheel and then placing a circular flanged wheel or form C against said scalloped plate and securing them together by riveting or otherwise, forming spaces or cavities to receive the racer plate A.

The wires E for holding the spools are passed through the shoe and plate and are secured on the outside of the plate.

The winged fly guide G for changing the direction of the racers is composed of a metallic casting or wrought iron piece forming a head and tail and having two curved wings; that which is attached to the upper circle is hung to a bolt or pin H passing through said circle with the tail end suspended between the revolving forms C. Those attached to the lower circle are placed in a reverse position—that is to say tail upward and in every alternate space around

the circle. All the fly guides around the circles are made alike. The racers, carriers, and forms arranged around the circles are also formed like that above described.

5. The spools containing the thread to be braided are arranged on the racers in the manner of the machines referred to; and the article to be braided is held in the center of the circle in the manner of those machines.
- 10 Mode of operation: The racer A'' being in the position shown in the drawing in Fig. 1 lifts the right wing of the fly guide G', at the same time bringing the tail end against the periphery of form C'' and making a
- 15 passage for racer A' to travel to the left around form C'—which movement forms the upper stitch. To form the lower stitch the lower fly guide G'', in a reverse position, is required to operate, which is performed as
- 20 follows: When the racer A''' strikes the wing of guide G'' in passing around form C''' in the direction of the arrow it moves

the tail of this fly guide G'' against form C''' and makes room for racer A''' to pass on to form C'' traveling in an opposite 25 direction to racer A'''—and in this manner the direction of the racers is changed, and the lower stitch formed; and so on with all the racers around the circle.

What I claim as my invention and which 30 I desire to secure by Letters Patent consists—

1. In attaching the form to and making it revolve with the carrier—as described.
2. In attaching to the back of the racer a 35 disk which plays into and is carried by the carrier as herein described.
3. In the employment of the fly guides for the purpose and in the manner described.

DUDLEY D. SACKET.

Witnesses:

WM. G. BATES,
ARTEMAS ROGERS.