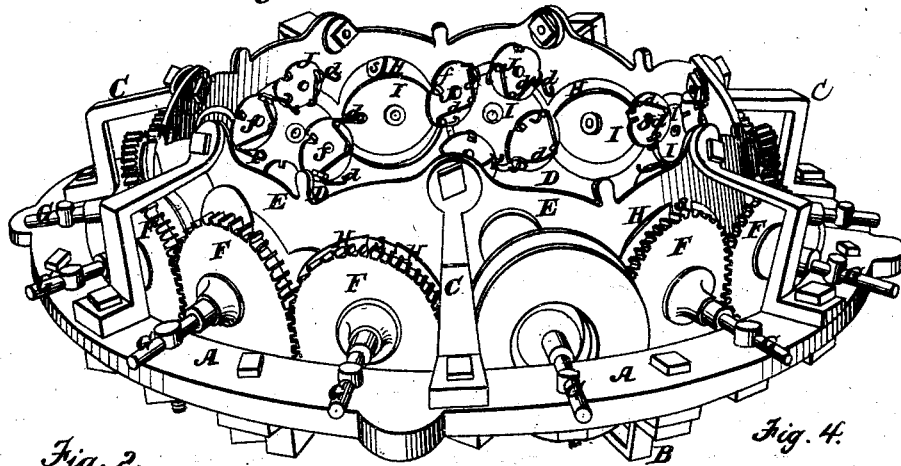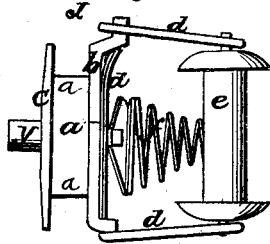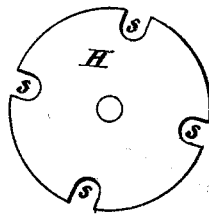# S. Halladay.
Braiding Mach.
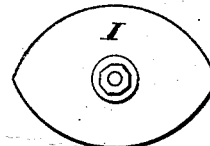
No. 672.

Patented Apr. 4, 1838.

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.
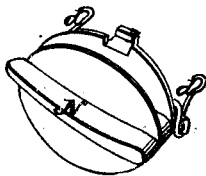
Fig. 7.

Fig. 10.
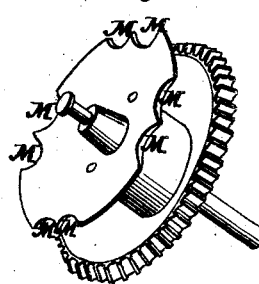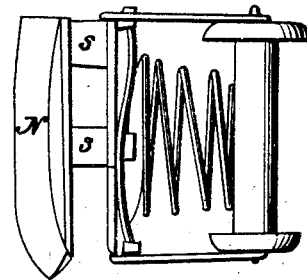
Fig. 8.

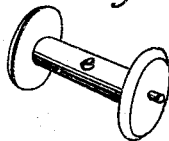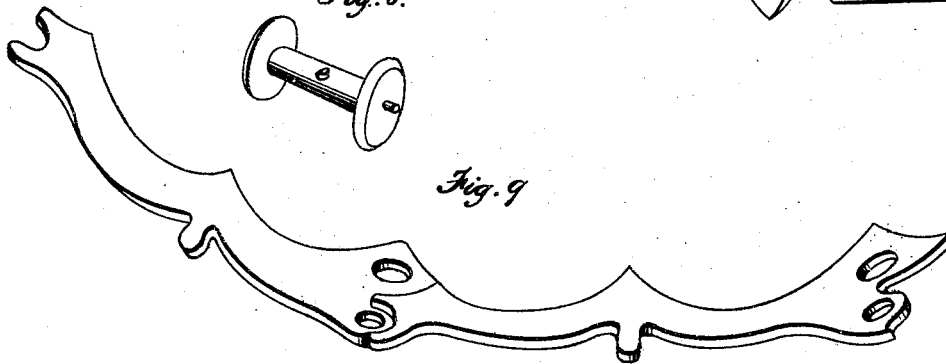Fig. 9.

UNITED STATES PATENT OFFICE.

SEYMOUR HALLADAY, OF WESTFIELD, MASSACHUSETTS.

PLAITING-MACHINE FOR COVERING WHIPS.

To all whom it may concern:

Be it known that I, SEYMOUR HALLADAY, of Westfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement on John Thorp's Patented Braiding-Machine, called "Halladay's Improved Braiding-Machine," which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

The leading features of my machine resemble that invented by Mr. Thorp, as will be seen by a reference to the annexed drawings and as his machine is so well known these parts need not, therefore, here be particularly described.

A, Figure 1, represents the main circular rim made similar in both machines; B, under knees screwed to the rim A for supporting the lower circle; C, upper knees also screwed to the rim A for supporting the top circle E; D, lower circle screwed to the lower knees, B; E, upper circle screwed to the upper knees C; F, the gearing or cog-wheels, with the carrier wheels H attached to them and revolving on permanent axles G; G, axles fastened permanently to the main rim.

The above parts are similar in both machines, excepting the carrier wheels H. H, Figs. 1 and 3, carrier wheels, in which S are the scores or cavities to receive the stud y of the racer J, Fig. 2; I, Figs. 1 and 4, the oval plates or forms, made fast to the axles for directing the racer; J, Fig. 2, the racer made to travel in the grooves formed by the upper and lower circles and the forms, by means of the revolving of the carrier wheels, in which racer a is the shoe; b, front-plate; c', back plate, with the single stud y, which enters the cavities of the carrier wheel; d, bobbin wires; e, bobbin containing the substance to be braided; f, spring for producing friction on the axle of the bobbin to give a proper tension to the article to be braided.

Figs. 5 and 8 show the bobbin and spring detached; Figs. 6 and 10, Thorp's racer, and Fig. 9 a section of one of the circles.

The operation of my machine is similar to Mr. Thorp's.

The main feature of my improvement consists in the arrangement of the oval-plates I, called forms; placed between the top and bottom circles in order to guide the racer J, in its proper course around the circle—thus doing away with the use of the cant wire in Thorp's machine and preventing the danger of the racer dodging said cant wire and stopping the work. Also in the construction of the carrier wheel H with four single cavities s in the circumference thereof to receive the stud y of the racer for propelling it around the circle instead of four pairs of cavities M Fig. 7, for the two studs s s of Thorp's racer Fig. 10 Likewise in having but one stud y attached to the outside of the racer instead of two placed between the plates as heretofore used. Also in placing the shoe a, Fig. 2, (which travels around in the grooves between the forms and circles,) betwixt the two plates b, c, of the racer instead of the outside of the back plate as in Thorp's racer as seen at N, Fig. 6, and causing it to travel around between the edge of the carrier wheel and the circles, as in his machine.

The invention claimed and desired to be secured by Letters Patent consists in—

1. The arrangement of the oval plates or forms I between the circles as before described, in combination therewith.

2. The construction of the carrier wheel H with single cavities in its circumference to receive the single stud of the improved racer as before described.

3. The construction of the racer with one stud on the outside instead of two studs between the plates and in placing the shoe between the plates instead of on the outside.

SEYMOUR HALLADAY.

Witnesses:
ALEXANDER C. JESSUP,
AUGUSTUS COLLINS.