No. 803,767. PATENTED NOV. 7, 1905.

P. F. LIMACHER.

MARKING OR TRACING DEVICE.

APPLICATION FILED JULY 25, 1904

Fig. 2.

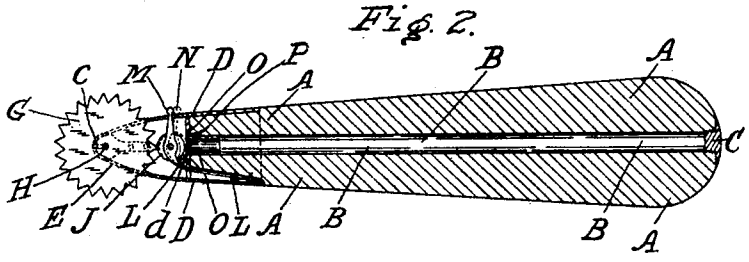


Fig. 8.

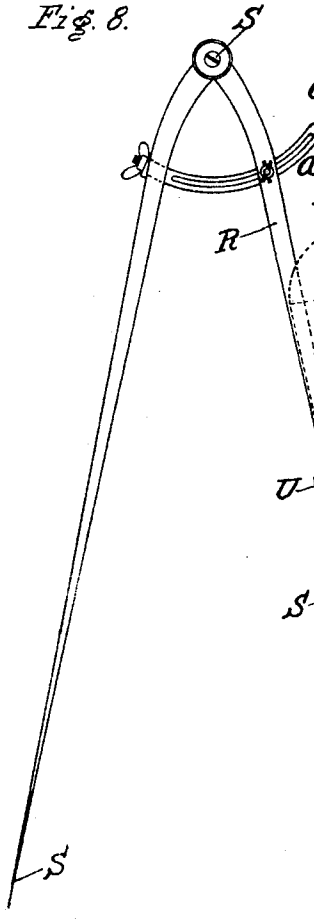


Fig. 1.

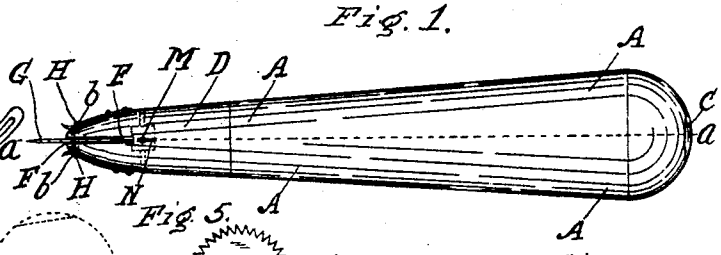


Fig. 5.



Fig. 6.



Fig. 9.

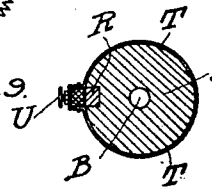


Fig. 4.



Fig. 3.

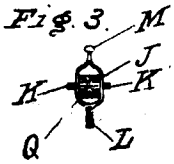
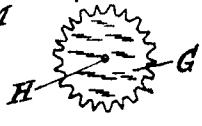


Fig. 7.



WITNESSES

Hadassah Day.

INVENTOR

Pius Frank Limacher

BY St. John Day.

ATTORNEY

UNITED STATES PATENT OFFICE.

PIUS FRANK LIMACHER, OF LOS ANGELES, CALIFORNIA.

MARKING OR TRACING DEVICE.

No. 803,767. Specification of Letters Patent. Patented Nov. 7, 1905.

Application filed July 25, 1904. Serial No. 217,951.

To all whom it may concern:

Be it known that I, PIUS FRANK LIMACHER, of the city of Los Angeles, in the county of Los Angeles, in the State of California, have invented a new or Improved Marking or Tracing Device for Use by Dressmakers, Pattern-Drawers, Draftsmen, and Others, of which the following is a full, clear, and exact description or specification, reference being had to the annexed drawings and to the letters marked thereon.

This invention, which relates to a new or improved marking or tracing device adapted for use by dressmakers, pattern-drawers, and others employed in marking or tracing patterns upon portions of textile fabrics, also for use by draftsmen, engineers, surveyors, and others in laying out and marking on maps or plans, railways, canals, roadways and other lines, which are usually made as dotted lines, consists in adapting to a toothed wheel, marker, or pointer a device for applying ink or other marking fluid to the points of the toothed wheel, so that the toothed wheel in being moved over textile fabric, paper, or other material will make an inked or fluid-marked series of impressions of the marking-point of the wheel in the textile fabric or other material, which markings are or will be of a permanent kind instead of the impermanent impressions made by the points of the marking-wheel with said devices as hitherto constructed.

Upon the annexed drawings, Figure 1 is a plan of the device constituting my invention. Fig. 2 is a vertical section of the same on the line *a a*, Fig. 1, and showing the pointed marking-wheel at right angles to the position in which said wheel is shown at Fig. 1. Fig. 3 is an end elevation of the roller and carrier for transferring ink or other coloring fluid to the points of the marking-wheel. Fig. 4 is a side elevation of one of the springs for retaining the marking-wheel in operating position at the end of the device. Figs. 5, 6, and 7 are respectively face elevations of marking-wheels, showing the marking-points differently arranged, all of said wheels being interchangeable for the marking-wheel shown at Figs. 1. and 2. Fig. 8 is an elevation of a pair of compasses, showing the application of my device thereto for the purpose of being used in marking or tracing circular or segmental dotted lines. Fig. 9 is a plan of the clamping device for holding the marker or tracer to one leg of a pair of compasses.

In Figs. 1 and 2 the handle of the device is marked A, which may be formed of wood, ebonite, glass, or other material adapted for being used for handles. The handle A has formed throughout its length the tubular passage B. This passage is closed at its outer end by the screw-plug C, and it may be lined with a thin tube or not, according to the material of which the handle A is constructed. At the forward end of the handle A there is attached the hollow ferrule D, which is firmly attached to the handle A, as shown. This ferrule D is tapered toward its outer end or nose E and has cut in it a slot F to receive the marking-wheel G. The marking-wheel G has an axis H, as shown at Figs. 1 and 2, which projects sufficiently far outward from each face of the wheel G to engage with the holes *b b*, one of which holes is formed in each spring I, as shown in Figs. 1, 2, and 4. From the hole *b* in each spring I a groove *c* is formed at the inner face of each spring I and leading to the outer end thereof, as particularly shown at Figs. 2 and 4. When it is desired to remove the marking-wheel G from the bearings in the springs I I, one of the springs I I is pulled by the thumb-nail or otherwise outward to disengage one of the springs I from the axis H of the marking-wheel, and the marking-wheel is then easily removed from the device. In like manner when it is desired to place a wheel in the handle of the device the axis thereof is pressed into the groove in the respective springs I I, which under the pressure yield to the ends of the axis H until the ends of the axis H are pressed sufficiently far inward to enter the hole *b* in each spring I, whereby such marking-wheel is retained in the device in operative state and position.

Within the ferrule D the inking or color-carrying roller J is contained. This roller J has two journals K K, by which the roller J is mounted rotatively in the carrying-spring L, Figs. 2 and 3. The upper part of the carrying-spring L or that marked M projects up through a slot N in the ferrule D, and this projecting part M in being pressed forward by the finger of the operator, in whose hand the device is held, causes the ink or color-carrying roller J to be pressed against the points of the marking or tracing wheel G.

In the forward end of the ink or color-carrying tube or passage B a metallic cap-piece O is inserted, as shown at Fig. 2. This metallic cap-piece O has a small hole or slot *d* at the center of its front face P, as marked in Fig.

2. When the roller J is in its normal position, it is pressed by the spring L against this face P, and the hole therein is thereby closed, so that the ink or marking fluid contained within the tube B does not pass outward from the tube; but when the roller J is pressed against the points of the marking-wheel it is removed from contact with the edges of the hole in the face P, so that the ink or coloring-matter carried in the tube B flows in small but sufficient quantity upon the cylindrical surface of the roller J. The central portion of the cylindrical surface of the roller J is formed with slight indentations therein, as shown by the marks Q in Fig. 3. These marks Q are of sufficient depth not only to admit of the points of the toothed wheel G engaging thereinto and when the wheel G is rotated thereby rotating the roller F, but these indentations are also large enough for holding the quantity of ink or coloring liquid for being imparted to each point of the marking-wheel. When the marking or tracing is completed, the finger of the operator is withdrawn from the point M of the spring L, and the resilience of the spring L returns the roller J to its normal position, so that the opening in the face P is closed and the flow of ink or other marking fluid thereby stopped.

When using my device as an adjunct to a compass, as shown in Figs. 8 and 9, the handle A of the device is formed with a slot in it of sufficient depth to receive the leg R of the compass S, and the device is bound to the leg R by the clamping-ring T, which embraces both the handle A of my device and the compass-leg R, a set-screw U being provided for clamping the device in the required position upon the compass-leg R. The eccentrically-pivoted plate M′ in Fig. 8 presses upon the projection M to force the inking-roller against the points of the toothed wheel G and releases the inking-roller therefrom when turned upward into the dotted position shown at Fig. 8.

Having now described my said invention and the best system, mode, or manner I am at present acquainted with for carrying the same into practical effect, I desire to observe in conclusion that what I consider to be novel and original, and therefore claim as the invention to be secured to me by Letters Patent, is as follows:

1. A marking and inking device consisting of a handle containing a tube or receptacle for the marking fluid, the rotating pointed marking-wheel, the marking-fluid-transmitting roller operating in connection with the marking fluid and with the points of the marking-wheel, said roller being carried in the spring, said spring having a projecting end for being pressed against by the finger of the operator, the spring, the ink or coloring-matter slight indented recesses in the roller, all operating in the manner and for the purposes substantially as set forth.

2. A combination with the marking and inking device consisting of a handle containing a tube or receptacle for the marking fluid, the rotating pointed marking-wheel, the marking-fluid-transmitting roller, the spring with projecting end carrying said roller, the ferrule attached to the handle, the spring-bearings wherein the pointed marking-wheel is carried, said spring being fastened within said ferrule, all in the manner and for the purposes hereinbefore described.

In testimony whereof I, the said PIUS FRANK LIMACHER, have hereunto set my hand and seal, at Los Angeles aforesaid, in the presence of two subscribing witnesses.

PIUS FRANK LIMACHER. [L. S.]

Witnesses:
ST. JOHN DAY,
HUGH SPARKMAN.