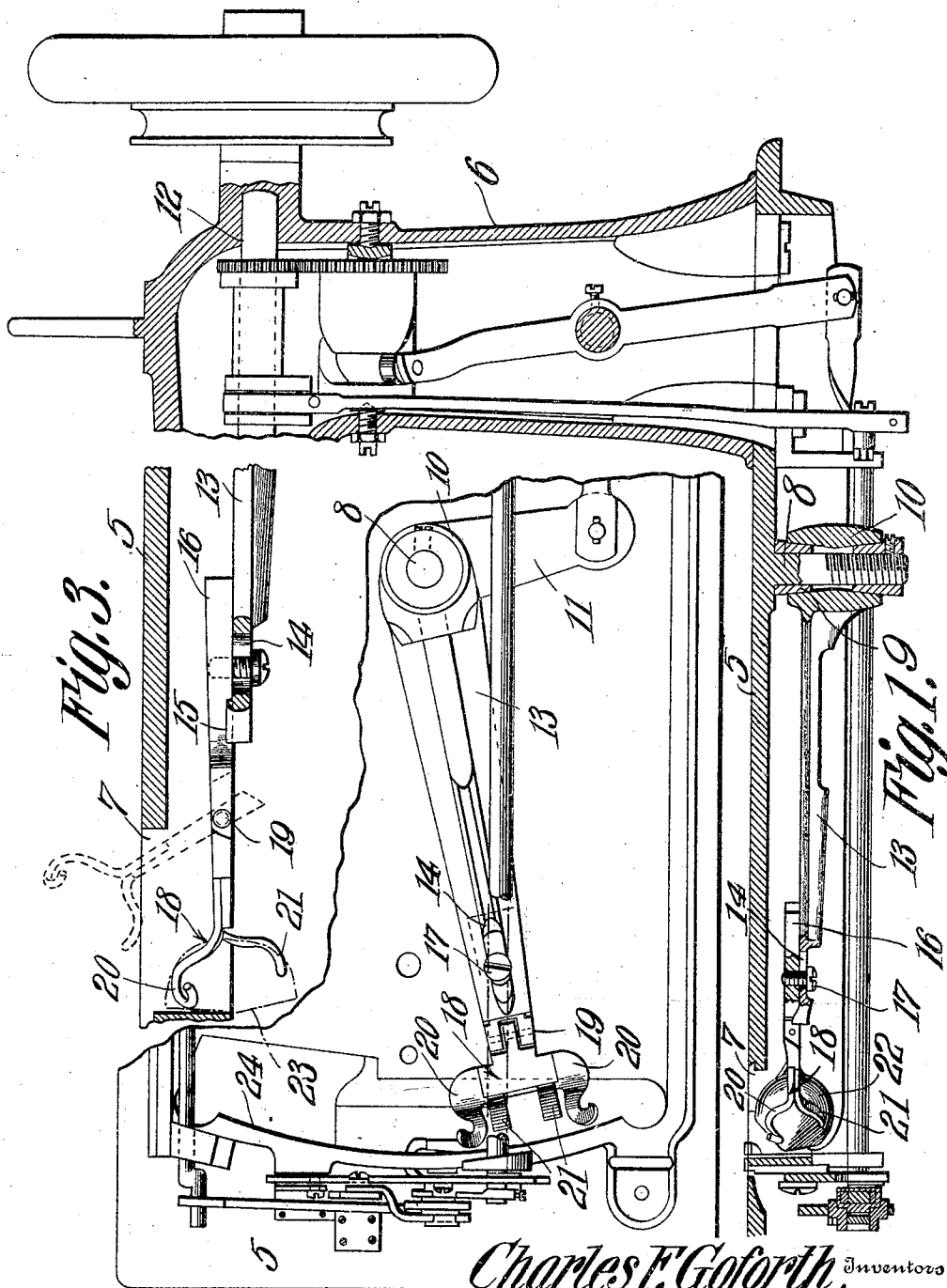


C. F. & M. T. GOFORTH.
SEWING MACHINE.
APPLICATION FILED NOV. 20, 1908.

942,899.

Patented Dec. 14, 1909.



Witnesses

W. H. H. H.
H. G. Smith

Fig. 2.

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UNITED STATES PATENT OFFICE.

CHARLES F. GOFORTH AND MARSHALL T. GOFORTH, OF WICHITA, KANSAS.

SEWING-MACHINE.

942,899.

Specification of Letters Patent.

Patented Dec. 14, 1909.

Application filed November 20, 1906. Serial No. 344,296.

To all whom it may concern:

Be it known that we, CHARLES F. GOFORTH and MARSHALL T. GOFORTH, citizens of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented a new and useful Sewing-Machine, of which the following is a specification.

This invention relates to sewing machines. The object of the present invention is to provide an improved shuttle mechanism for sewing machines.

More specifically, the invention has as its object to provide an improved shuttle support or basket so arranged that it may be pulled up through an opening in the throat plate to facilitate the removal and replacing of the shuttle of the machine.

In the accompanying drawings, Figure 1 is a vertical longitudinal sectional view through a portion of a sewing machine embodying the shuttle mechanism of the invention, Fig. 2 is a bottom plan view of a portion of the machine mechanism showing the location and arrangement of the shuttle support, and Fig. 3 is a detail view partly in elevation and partly in section showing the shuttle support and illustrating the same in normal position in full lines and in position to permit of ready removal or placing of the shuttle in dotted lines.

In the drawings, the cloth plate of the sewing machine is indicated in general by the reference numeral 5, the standard or goose neck of the machine by the numeral 6, and the throat or opening for removal and replacement of the shuttle by the numeral 7, this opening being formed in the cloth plate 5 as usual.

Extending downwardly from the under side of the cloth plate is a threaded pin or stud 8 which carries a conical bearing 9 upon which is fitted a sleeve 10 formed at the point of junction of the two arms of an angle lever 11. One arm of this lever projects in the direction of the shuttle opening 7 in the cloth plate 5, beneath the said cloth plate, and supports the shuttle as will presently be made clear, it being understood that the arm is rocked upon the bearing 9 through the medium of any suitable power transmission element which connects the angle lever and the power shaft 12 of the machine which shaft is journaled in the

horizontal arm of the standard or goose neck 6.

The shuttle carrying arm of the angle lever, above referred to, is indicated by the numeral 13 and near its outer extremity is formed with a slot 14 and beyond this slot and upon its upper face with a lug or ear 15 which serves to prevent lateral displacement of the bar 16 which is adjustably locked to the said arm 13 by means of a set screw 17 engaged through the slot 14 in the said arm and threaded into the bar 16.

To the outer end of the bar 16 there is pivoted a shuttle carrying basket indicated in general by the numeral 18, the pivotal connection between the basket and the arm being indicated by the numeral 19 and being arranged to form a lap joint that will prevent excessive downward movement of the basket although the construction is such that the basket may be swung upwardly approximately to the position indicated by the dotted lines in Fig. 3 of the drawings so that the shuttle may be readily removed or replaced.

As clearly shown in the several figures of the drawings the basket is formed with two curved shuttle engaging fingers 20 and beneath these fingers with two curved shuttle engaging fingers 21 it being understood that the shuttle is received between the upper fingers 20 and the lower fingers 21. The shuttle is indicated by the numeral 22 and is pointed at each end.

The shuttle 22 has a slightly curved forward face 23 arranged to slide against a curved flange 24 which depends from the under side of the plate 5 and is arranged on an arc struck from the axis of the pivot pin 8, and the back of the shuttle is rounded and tapers to loop entering points one at each end of the shuttle. The fingers of the shuttle basket serve merely to hold the shuttle in place against the flange 24 as will be readily understood, and the ends of all of the fingers are curved outward in such manner as not to interfere with the passage of the shuttle through the loops.

From the foregoing description of the invention it will be understood that the shuttle basket may be swung from the position shown in full lines in Fig. 3 of the drawings to substantially the position shown in dotted lines in the said figure of the draw-

ings and that when in this latter position, the shuttle may be readily removed from the basket or a shuttle be placed therein.

We claim:—

5 1. A sewing machine having a throat plate opening, a reciprocatory shuttle disposed beneath the opening, a shuttle actuator, and a shuttle basket pivotally carried by the actuator and arranged to be projected
10 upward through the throat plate opening.

2. A sewing machine having a throat plate opening, a reciprocatory shuttle disposed beneath the opening, a shuttle actuator, a shuttle basket pivotally carried by the
15 actuator and arranged to be projected upward through the opening, and means for limiting the downward movement of the basket relatively to the actuator.

3. In a sewing machine, a bed plate hav-

ing an opening therein, a shuttle carrying 20 lever, a shuttle basket pivotally connected thereto and movable upward through the opening in the bed plate to permit the insertion and removal of the shuttle, said basket having a pair of spaced lower arms, 25 and a pair of spaced upper arms for engagement with the upper and lower portions of the shuttle, substantially as specified.

In testimony that we claim the foregoing as our own, we have hereto affixed our sig- 30 natures in the presence of witnesses.

CHARLES F. GOFORTH.
MARSHALL T. GOFORTH.

Witnesses:

J. E. ALEXANDER,

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