April 9, 1929. C. H. GREENWOOD 1,708,296

ARM AND BED PLATE FOR SEWING MACHINES

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Fig. 1

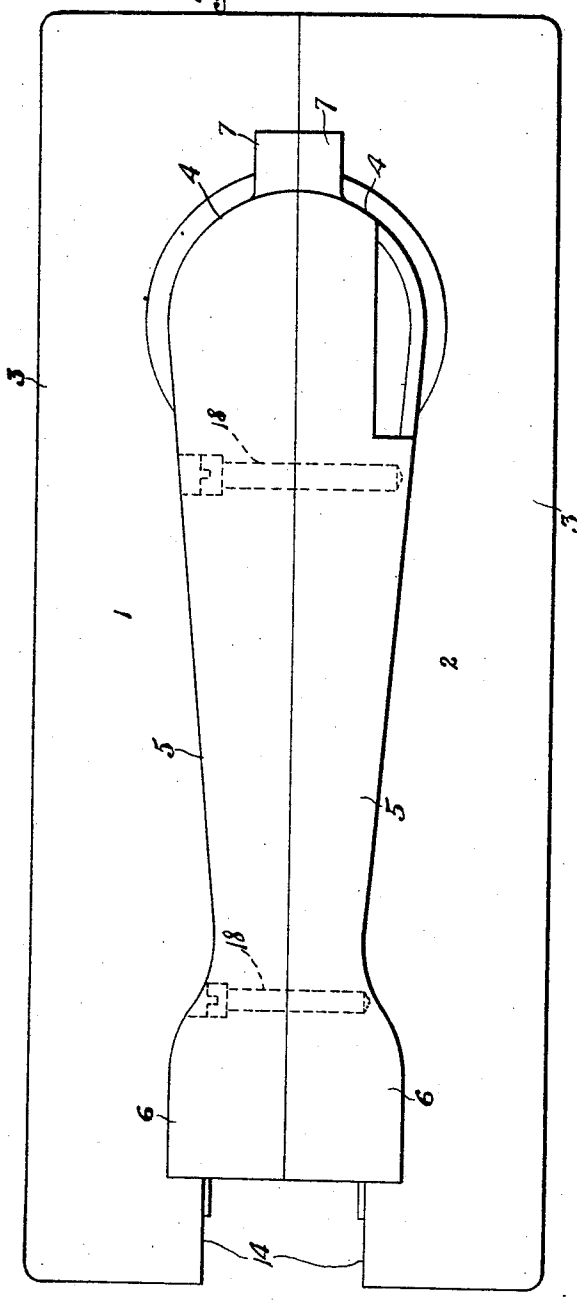


Fig. 8

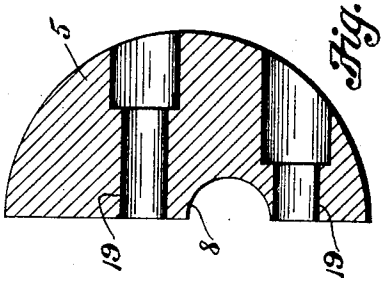


Fig. 7

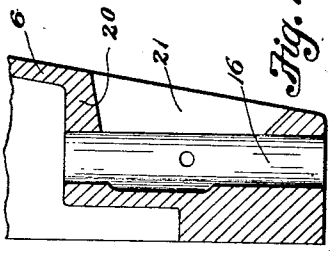
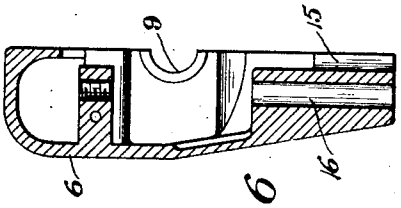


Fig. 6



Inventor

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ARM AND BED PLATE FOR SEWING MACHINES

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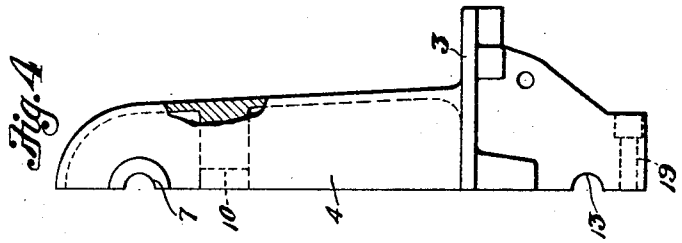


Fig. 4

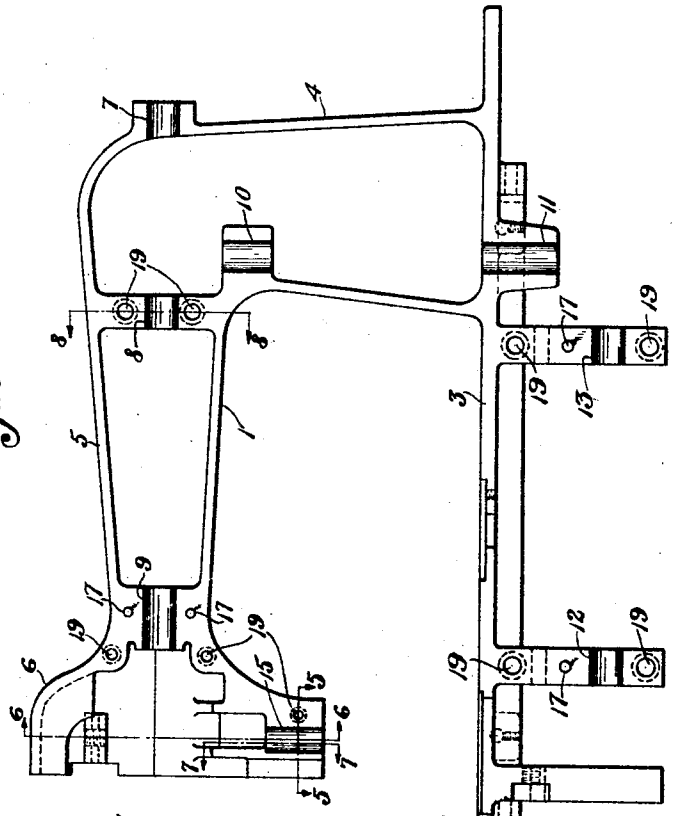


Fig. 2

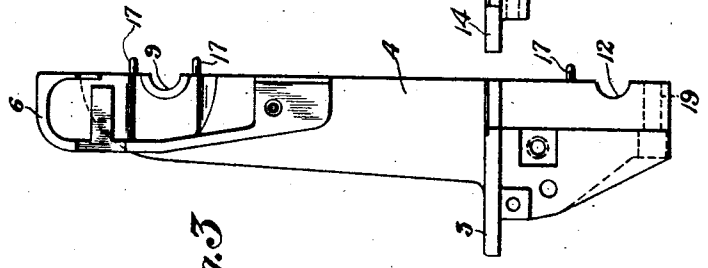


Fig. 3

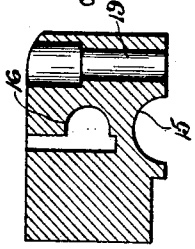


Fig. 5

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UNITED STATES PATENT OFFICE.

CHARLES H. GREENWOOD, OF CANTON, OHIO.

ARM AND BEDPLATE FOR SEWING MACHINES.

Application filed June 9, 1923. Serial No. 644,395.

This invention relates to die castings for the arm and bed plate of a sewing machine, and has for its objects to provide a sewing machine arm formed of two similar halves, one-half of the bed plate being formed integrally with each half of the arm.

The above and other objects may be attained by constructing the parts in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of the arm and bed plate castings assembled;

Fig. 2, an elevation of the inner side of the casting for one-half of the arm and bed plate;

Fig. 3, a front end elevation of the same;

Fig. 4, a rear end elevation of the same;

Fig. 5, a section on the line 5—5, Fig. 2;

Fig. 6, a section on the line 6—6, Fig. 2;

Fig. 7, a section on the line 7—7, Fig. 2; and

Fig. 8, a section on the line 8—8, Fig. 2.

Similar numerals refer to similar parts throughout the drawings.

It is customary in sewing machine construction to form the arm in a single casting separate from the bed plate, which is formed in a single casting, an arm being connected thereto by screws or the like. Such a construction requires considerable machine work in order to fit the mechanism within the arm and base plate and the present improvement is designed to overcome all of this expensive machine work by forming the arm and base plate of two similar die castings connected together through their longitudinal center.

The arm and base plate are made up of two substantially similar sections 1 and 2, the section 1 being shown in Fig. 2. Each section comprises one-half of the base plate, as shown at 3, one-half of the standard 4, one-half of the arm 5 and one-half of the head 6.

The standard portion of each casting is provided with a half of a bearing shown at 7, these portions being arranged to register when the halves are connected together as shown in Fig. 1. The bearing 7 is aligned with similar bearings 8 and 9 formed in each half of the arm. The bearings 7, 8 and 9 are aligned to receive the usual driving shaft which is provided at its outer end with the usual hand wheel, and has its inner end operatively connected to the mechanism within the head for reciprocating the needle bar and the associated mechanism.

Each half of the standard is provided with a half of a bearing 10 and each half of the base plate has a half of a bearing 11 aligned with the bearing 10, and arranged to receive a vertical shaft which transmits power from the drive shaft to a horizontal shaft which is mounted in bearings 12 and 13 formed upon the under side of each half of the base plate, this last named shaft being provided for transmitting power to the shuttle which is mounted beneath the forward end of the base plate in the usual manner, each section of the base plate being cut out as at 14 to receive the usual shuttle plate.

Each section of the head 6 is provided with the central, vertical, half round bearing portion 15 arranged to receive the usual vertically slidable needle bar and the section 1 is provided with a vertical bearing 16 to receive the usual presser foot bar.

Dowel pins 17 are provided in different portions of the inner face of one section to be received in corresponding apertures in the other section, in order to properly center the two halves, screws 18 being located through transverse apertures 19 in the two sections for the purpose of combining the same together.

Referring to Fig. 7, it will be noted that a partition wall 20 is provided through which the upper end of the presser bar bearing 16 is extended, thus preventing oil from passing down through the head and on to the presser foot. The presser foot lift lever is extended through the slot 21 which terminates at the partition wall 20.

By forming the castings in this manner it will be seen, by referring to Fig. 2, that oil wells are provided in the head, to oil the working parts therein, and also in the arm and the standard, between the bearings 8 and 9, and the bearing 9 and bed plate re-

spectively, thus providing self oiling means for all of the inclosed working parts of the machine.

I claim:—

An article of manufacture including a pair of similar hollow die castings, each comprising one-half of the bed plate, standard, arm and head of a sewing machine, said castings being provided with half round grooves arranged to register with each other and form bearings for the driving shafts of the sewing machine.

In testimony that I claim the above, I have hereunto subscribed my name.

CHARLES H. GREENWOOD.