

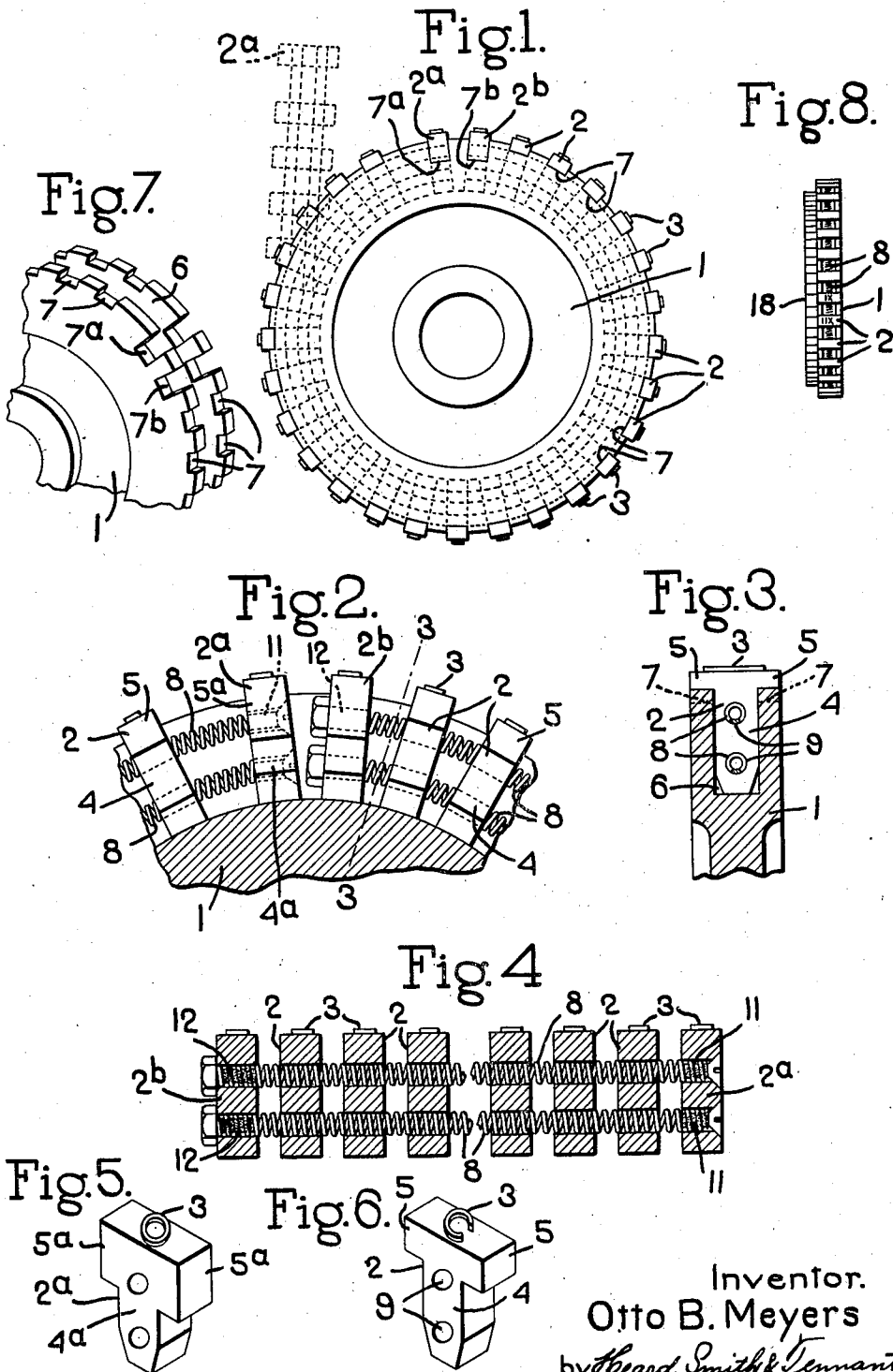
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TYPE WHEEL FOR MARKING MACHINES

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TYPE WHEEL FOR MARKING MACHINES

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3 Claims. (Cl. 101—110)

This invention relates to type wheels for marking machines, and especially to type wheels which are made with interchangeable type members. The purpose of making a type wheel with interchangeable type members is to provide for changing the character of the printed impression without the necessity of removing the type wheel from the marking machine and replacing it by a different type wheel.

One of the objects of the present invention is to provide a novel type wheel which is constructed so that the members carried thereby can be removed from or replaced on the type wheel as a unit, thus making it possible to change all of the type members on any type wheel without removing the latter from the marking machine.

In order to give an understanding of the invention, I have illustrated in the drawing a selected embodiment thereof which will now be described, after which the novel features will be pointed out in the appended claims.

In the drawing:

Fig. 1 is a side view of a type wheel embodying my invention.

Fig. 2 is a fragmentary sectional view.

Fig. 3 is a section on the line 3—3, Fig. 2.

Fig. 4 is a sectional view through the connected type members.

Fig. 5 is a perspective view of the end type member of the string of type members.

Fig. 6 is a perspective view of one of the intermediate type members.

Fig. 7 is a fragmentary perspective view of the type wheel with the type members removed.

Fig. 8 is an end view of a type wheel embodying the invention with ratchet teeth for stepping the type wheel forward.

In the drawing, 1 indicates a type wheel embodying my invention which is adapted to be used in any marking machine, and 2 represents a plurality of separate, independent type members flexibly connected together and carried by the periphery of said type wheel. The type wheel may be equipped with any desired number of these type members, and they may have any desired spacing on the peripheral portion of the type wheel.

Each type member 2 carries on its outer surface a type character 3, and the type characters for the various type wheels usually differ from each other, so that by adjusting the type wheel in the marking machine, any one of the type members may be brought into printing position to make the printed impression desired.

In accordance with my invention, the type members 2 which are separate and independent from each other, are connected together as a chain and thus constitute a type assembly which is removable as a unit from the type wheel 1.

Each type member is shown as having a general T shape, it having the body or stem portion 4 and the head portion 5 which carries on its outer surface of the type character 3.

The type wheel 1 is made with a peripheral groove 6 of a size to receive the stem portions 4 of the type members 2, and said type wheel is also formed on its periphery with transverse notches 7 of a size to receive the head portions 5 of the type members, said notches serving to establish the correct spacing between the type members on the type wheel.

The series of type members 2 are yieldingly connected together in the form of a chain, and this is herein accomplished by stringing the individual type members on two coil springs 8 which are connected at their ends to the two end type members 2a and 2b.

The body or stem portion 4 of each type member is formed with two apertures 9 through which the coil springs 8 extend, and one end 11 of each spring is secured to one end type member 2a, and the other end 12 of each spring is secured to the other end type member 2b. The intermediate type members 2 are strung on the coil springs 8, as shown in Fig. 4.

The heads 5a and 5b of the two end type members 2a and 2b have a greater radial dimension than the heads 5 of the other type members, and the notches 7a and 7b in which the heads 5a and 5b of the end type members 2a and 2b are received are somewhat deeper than the other notches 7. When the type assembly in the form of a chain of type members 2, 2a, 2b, is mounted on the type wheel 1, the heads 5a, 5b of the end type members will be occupying the deeper notches 7a, 7b, and the heads of the other type members will be occupying the other notches 7, as shown in Fig. 3, while the stems or body portions 4 of all the type members occupy the groove 6. When thus applied, the springs 8 are stretched or extended somewhat, and the resiliency of the springs and their tendency to contract and assume their normal length causes all the type members to be held firmly against the periphery of the type wheel with the heads 2 of the type members occupying their respective notches 7.

When it is desired to change the type members on the type wheel, one of the end type

members 2a or 2b is lifted out of its notch 7a or 7b, and the connected chain of type members can then be unwound from the exterior of the type wheel, as indicated in dotted lines, Fig. 1. To replace this chain of type members with a chain having different type members, all that is necessary is to place one of the end type members in one of the notches 7a or 7b, and then to wind the chain of type members around the periphery of the type wheel and at the same time to stretch the springs 8 sufficiently to permit the other end type member to be placed in its deep notch 7a or 7b. The intermediate type members can then be shifted along the periphery of the wheel until each type member is received in its own notch 7. The tendency of the springs 8 to contract serves to hold the type members securely to the periphery of the wheel without the necessity of using any fastening means for this purpose.

My invention makes it possible to remove quickly and easily all of the type members on any type wheel and to replace them by other type members without the necessity of using any tools for this purpose.

If this type wheel is to be used in a machine in which it is to be stepped forward at each printing operation, as in my co-pending application, Serial No. 313,699, filed January 13, 1940, of which this application is a division, then the type wheel will be provided on one side with ratchet teeth 18 for cooperation with a suitable reciprocating pawl by which the type wheel is stepped forward at each printing operation.

I claim:

1. A type wheel for marking machines comprising a body portion having an annular peripheral groove and peripheral transverse notches, a series of type members, each having a body portion to be received in said groove, and a head portion to be received in one of said

notches, and coiled springs connecting the end type members of the series and on which the intermediate type members are strung, said springs acting to yieldingly hold the type members in position on the periphery of the body portion.

2. A type wheel for marking machines comprising a body portion having an annular peripheral groove, and a type assembly comprising a series of separate independent type members each having a body portion adapted to be received in said groove and a head portion carrying a type character, extensible spring means connecting the end type members of the series, the intermediate type members being carried by said spring means, said type wheel body portion having means for anchoring the two end type members in operative position, and said spring means being placed under tension when said end type members are thus anchored and serving to hold the intermediate type members in their operative positions.

3. A type member for marking machines comprising a body portion having an annular peripheral groove, and a type assembly comprising a series of separate independent type members each having a body portion adapted to be received in said groove and a head portion carrying a type character, extensible spring means connecting the two end type members of the series, the intermediate type members being carried by said spring means, said type wheel body portion having transverse peripheral notches to receive and position said end type members, said spring means being placed under tension when said end type members are occupying the notches and thereby serving to hold the intermediate type members in operative position.

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