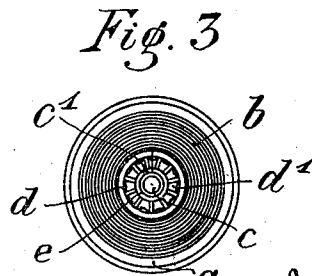
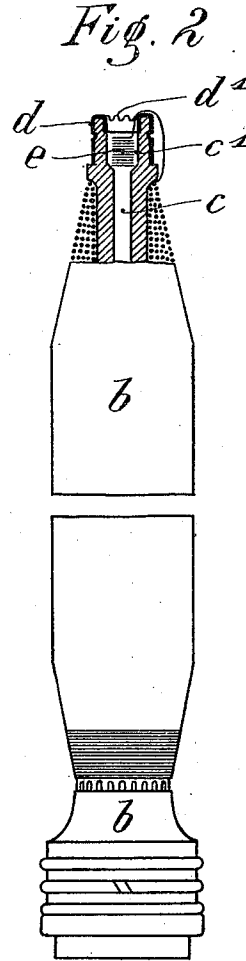
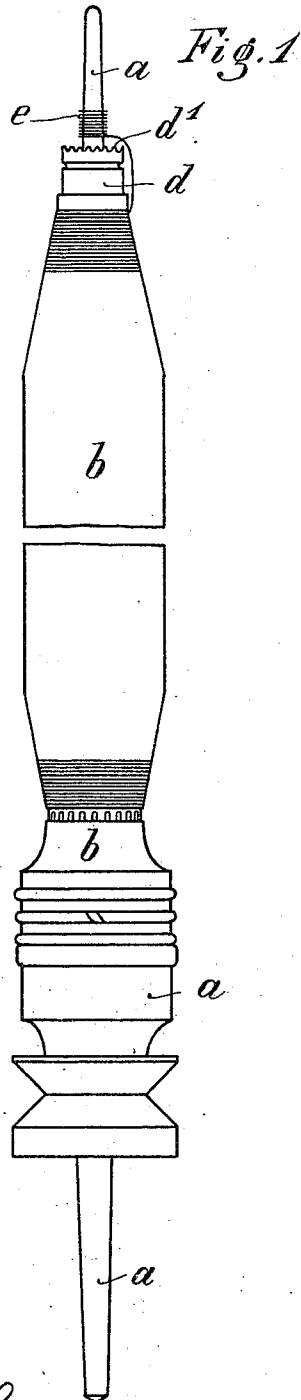


A. MARAZZI.
BOBBIN FOR WEAVING LOOMS.
APPLICATION FILED FEB. 9, 1911.

1,029,020.

Patented June 11, 1912.



Witnesses:

Louis Armour
Charles Francis

Inventor
Adolf Marazzi
by *Admire*
his Attorney

UNITED STATES PATENT OFFICE.

ADOLF MARAZZI, OF KOTTERN, NEAR KEMPTEN, GERMANY, ASSIGNOR TO THE FIRM OF GENOSSENSCHAFT FÜR TEXTILPATENTE, OF BASEL, SWITZERLAND.

BOBBIN FOR WEAVING-LOOMS.

1,029,020.

Specification of Letters Patent.

Patented June 11, 1912.

Application filed February 9, 1911. Serial No. 607,691.

To all whom it may concern:

Be it known that I, ADOLF MARAZZI, citizen of Bavaria, residing at Kottern, near Kempten, in the Kingdom of Bavaria, German Empire, have invented certain new and useful Improvements in Bobbins for Weaving-Looms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Bobbins for looms with mechanical bobbin change having holders for the thread ends, are a part of the prior art. In the new types of bobbin these holders consist of closed metal caps placed on the hollow bobbin case, which latter is connected with a source of compressed air. The thread of the weft is wound a few times around these caps in order to form the so-called reserve and is given the required position by blowing away the cap in the loom. This form of thread-holder has the disadvantage that the caps are costly, both in the initial cost and in up-keep. Since they sit loosely on the ends of the bobbins they often fly off in consequence of the speed of rotation and get lost or are trodden under foot, this especially happening during the transport of the bobbins. A further disadvantage is that the caps must be adjusted on the bobbins each time a bobbin is wound in the spinnery and after the blowing off in the loom, said caps must be again collected and the remnants of thread removed. This requires a considerable amount of time or special devices. Finally it must be mentioned that the transport of such bobbins is difficult, since they must first be packed in single rows in small boxes, and these then packed in larger cases, this being necessary in order to prevent the caps falling off and the thread becoming damaged. Even if the bobbin is thus brought intact as far as the changing device, the thread may be damaged when gliding out of said device so that the threading of the shuttle fails.

All these disadvantages are avoided in the bobbin according to the present invention, the essentially new feature of the same being the arrangement of the thread necessary for the automatic threading of the shuttle, the so called reserve, in the suitably

enlarged end bore-hole or recess of the bobbin, from which it is blown in known manner. The formation of this thread-reserve is accomplished by giving the thread a few turns around the projecting end of the bobbin after the latter has been wound. When the bobbin is then pulled off the spindle these turns will be automatically passed into the recessed end of the bobbin, where they are protected against outward influences until the blowing off in known manner.

Reference being had to the accompanying drawing, Figure 1 shows a bobbin according to the present invention after winding, the bobbin being still on the spindle, Fig. 2 shows the bobbin after removal from the spindle certain parts being shown in section. Fig. 3 is an end-view of the bobbin as shown in Fig. 2.

a is the spindle, *b* the bobbin, having the narrow bore-hole *c*, enlarged at its end to form the recess *c'*. The end of the bobbin *b* is provided with a cap *d*, turned down at its upper edge into the recess *c'* and preferably having a notched end-surface *d'*, the notched formation of the cap tending to prevent the thread from being frayed or otherwise damaged.

e is the thread-reserve which comes to lie in the recess *c'* after the bobbin is removed from the spindle. The thread-reserve may also be formed by simply passing the end of the thread through the bore-hole of the bobbin. This arrangement of the thread-reserve in the bore-hole of the bobbin makes it possible to blow out the reserve with the greatest certainty and with a low air-pressure; a tearing or damaging of the thread is altogether avoided, as the weight of the reserve is so small, that it prevents damage. On the other hand, the more or less heavy caps according to the prior art, requiring a considerable air-pressure to blow them off, very frequently resulted in a tearing of the reserve. Also, the transport of the bobbins according to the new invention does not require such great care as was the case with the old type, so that the new invention increases the efficiency of the weaving-loom in every direction.

What I claim as my invention and desire to secure by Letters Patent, is:

1. As a new article of manufacture, a

2
bored full bobbin wound with reserve thread, in which said bobbin the bore is enlarged at one end to form a recess wherein the reserve thread is seated and adapted to be
5 blown therefrom by compressed air.

2. As a new article of manufacture, a bored full bobbin wound with reserve thread, having the reserve thread seated in the bore in the bobbin and from which it
10 is adapted to be blown by compressed air.

3. As a new article of manufacture, a bored full bobbin wound with reserve thread, having the reserve thread seated in the bore in the bobbin, and a protective cov-

ering for the reserve thread, arranged at 15 one end of the bore.

4. As a new article of manufacture, a bored full bobbin wound with reserve thread, having the reserve thread seated in the bore in the bobbin, and a notched metal 20 cap on one end of the bobbin to protect the reserve thread in the bore.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

ADOLF MARAZZI.

Witnesses:

ALFRED KREMSER,
C. KINZEL.