

(No Model.)

K. W. WEISS.  
PILE WIRE FOR LOOMS.

No. 505,583.

Patented Sept. 26, 1893.

Fig. 1.

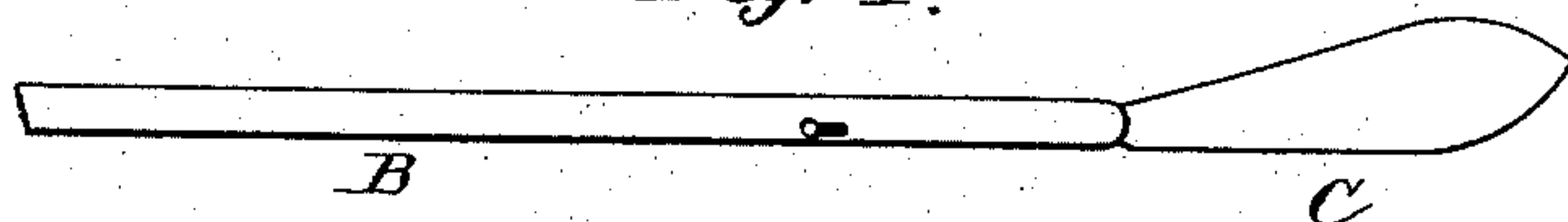


Fig. 2.

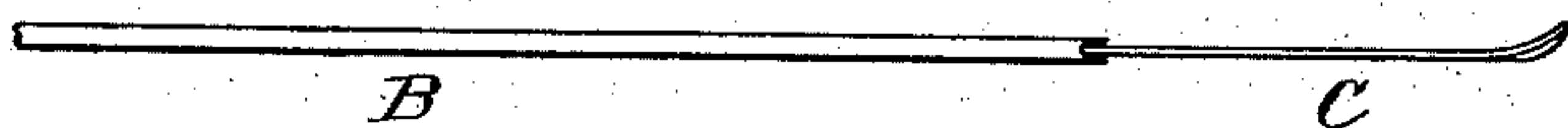


Fig. 3.

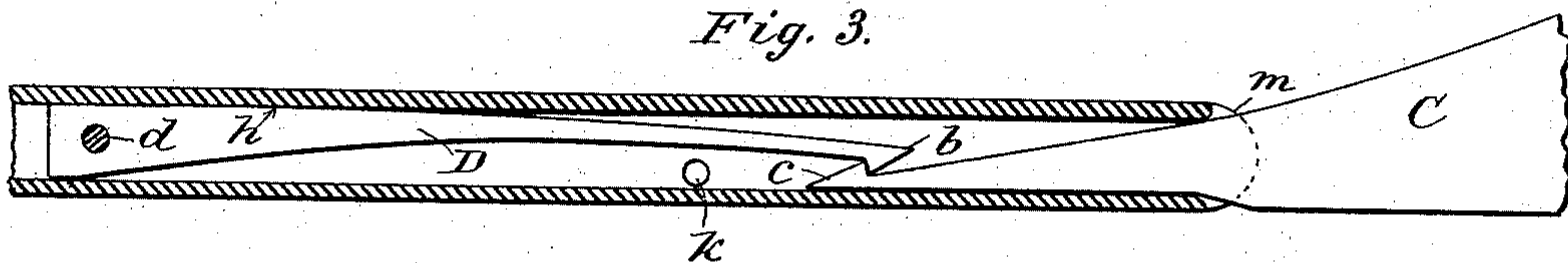


Fig. 4.

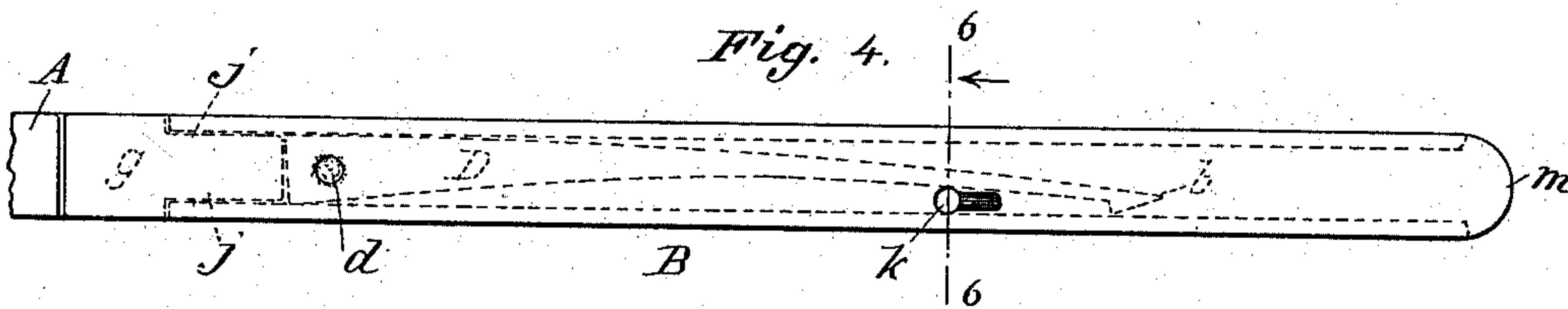


Fig. 5.

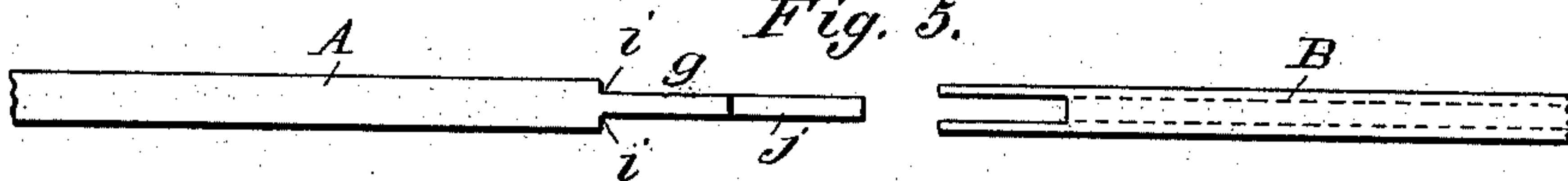


Fig. 7.

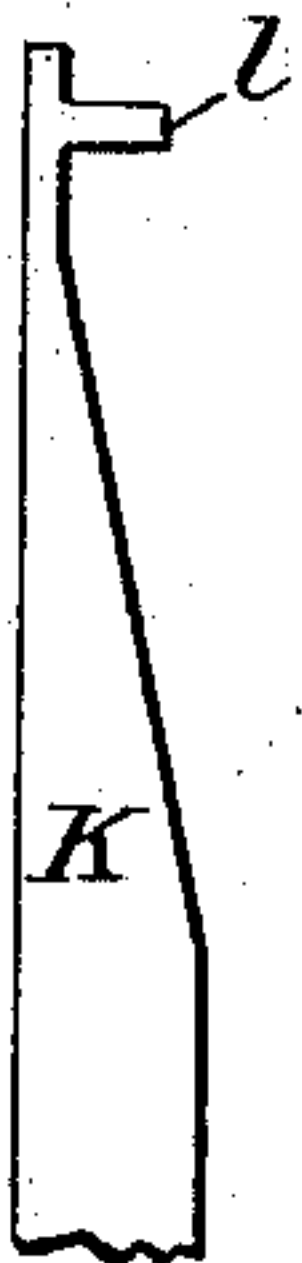
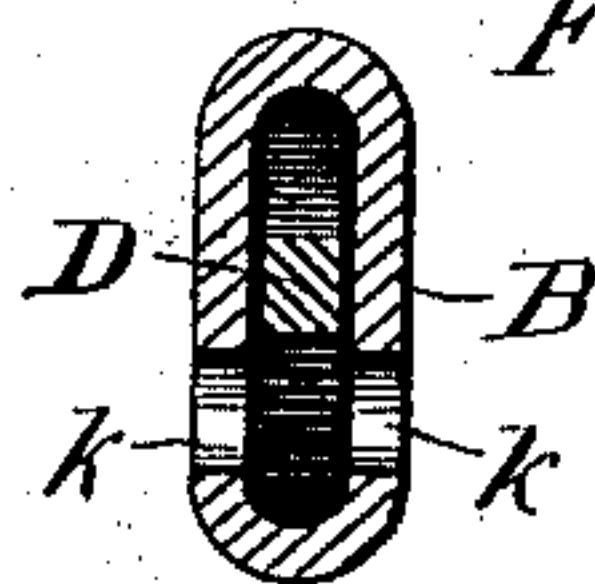


Fig. 6.



WITNESSES:

W. B. Shepherd.  
F. C. Morse

INVENTOR

Karl H. Weiss,  
BY  
Brienen & Mawth  
his ATTORNEYS.

# UNITED STATES PATENT OFFICE.

KARL WILH. WEISS, OF YONKERS, NEW YORK.

## PILE-WIRE FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 505,583, dated September 26, 1893.

Application filed June 19, 1893. Serial No. 478,033. (No model.)

*To all whom it may concern:*

Be it known that I, KARL WILHELM WEISS, a resident of Yonkers, Westchester county, State of New York, have invented an Improvement in Pile-Wires for Looms, of which the following is a specification.

My present invention relates to pile-wires for use in looms for weaving pile fabrics, and has for its object to improve the means employed for securing the removable knife to the pile-wire and releasing it therefrom. These objects I attain by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my improved pile-wire construction. Fig. 2 is a top view thereof. Fig. 3 is an enlarged vertical section through the sheath showing the manner of securing the removable knife. Fig. 4 is an enlarged side view of the sheath without the knife and showing the operating parts in dotted lines. Fig. 5 is a top view of the sheath and the stem, showing a suitable method of forming a joint for attaching the stem and sheath together. Fig. 6 is an enlarged cross-section on line 6—6 of Fig. 4, looking in the direction of the arrow. Fig. 7 shows a key for disconnecting the sheath and knife.

The pile-wire consists of a stem or shank A attached to a sheath B by a suitable coupling, such for instance, as the arrangement shown in Fig. 5, wherein *g* is a prolongation of the stem cut away at each side at *i* so that it will fit between the side walls of the sheath and also cut away at *j* for complete entrance into the sheath so that it may be secured therein. The sheath is a flat tube of metal and may be formed in any suitable manner, preferably by bending sheet metal up into the form shown. A spring D is mounted at one of its ends *d* within the sheath by a drop of solder or other suitable means, and is thinned or tapered toward its other end where it terminates in a beveled hook *b* as shown. The side of the spring D rests against the top of the inside of the sheath as at *h* to form a bearing for the spring hook. A key-hole *k* is cut in the side of the sheath below the spring D and is adapted for the insertion of a key such as K. The key is inserted into the key-hole in the sheath and is turned until the bit or projection *l* engages the spring hook and bends it up toward the top of the sheath.

Two sides of the sheath are prolonged as shown at *m* to form guides for the insertion of the beveled hooked shank *c* of the knife blade or cutter C, and also to serve as supports to prevent sidewise movement of the blade after it is in place in the sheath as shown in Figs. 1, 2 and 3.

The manner of engaging the blade in the stem is as follows: The hooked shank *c* is inserted into the sheath between the prolongations *m* in such a position that when pressed home the hooks *b* and *c* will engage as in Fig. 3.

Instead of the particular form of locking device D, *b*, shown, any other analogous form will readily occur to the skilled mechanic, and may be employed. The wire can now be used for its purpose in a loom for weaving pile fabrics. When the knife or cutter has become dull or has developed any defect and it is desired to remove it from the sheath, it is merely necessary to insert the key K into the key-hole *k* in the sheath to engage and lift the hook *b* in the manner described clear of the hook *c* to disengage the hooks when the knife may be removed from the sheath.

It will be obvious that there are many special advantages of my construction. The knife may be readily removed for grinding, and as easily replaced. There are no projecting parts to catch in the threads or the fabric. The whole is compact and reliable and not liable to get out of order.

Having described my invention, I claim—

1. In a pile-wire, the combination of the hollow sheath open at one end, with the locking spring and with the detachable knife or cutter adapted to be engaged by said spring, said sheath being apertured to permit the introduction of a key for disengaging said spring from said knife or cutter, as described.

2. The hollow sheath containing means substantially as described for locking the hooked shank of a knife blade, said sheath being open at one end for the introduction of the shank of said knife-blade, and a perforation by which access to the locking mechanism is obtained as specified.

KARL WILH. WEISS.

Witnesses:

WILLIAM F. SCHLOBOHM,  
FERDINAND BECKER.