

(No. Model.)

O. A. STEMPER.

COMPOSITE WHETSTONE OR HONE WITH METALLIC CORE.

No. 438,502.

Patented Oct. 14, 1890.

Fig. I

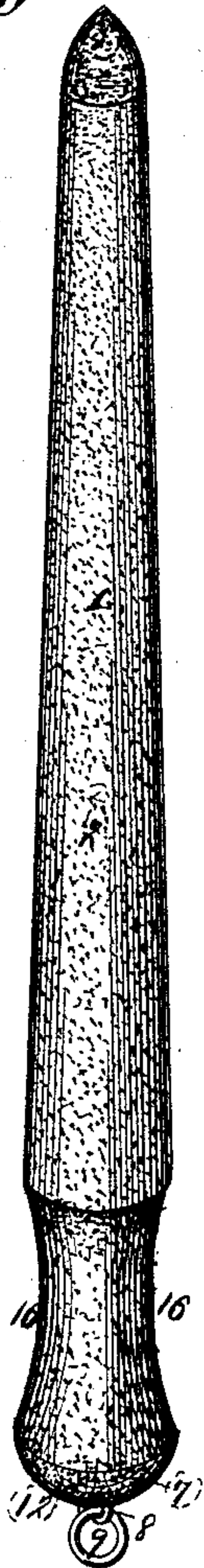


Fig. II



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SPECIFICATION forming part of Letters Patent No. 438,502, dated October 14, 1890.

Application filed May 13, 1890. Serial No. 351,710. (No model.)

To all whom it may concern:

Be it known that I, OMAR A. STEMPEL, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Composite Whetstones or Hones with Metallic Cores, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 This invention relates to an artificially-composed rifle, whetstone, or hone, in the interior of which is a rod or wire metal core, whose aggregate conformation preferably approximates to the shape of the rifle, whetstone, or hone that is molded around it; and the invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a perspective view of my composite rifle for sharpening knives, &c. Fig. II is a perspective view of the metal wire or rod core that is embedded within the composite rifle shown in Fig. I.

Referring to the drawings, 1 represents, respectively, a rifle or a whetstone or hone, the body of which is made of a composite 2, composed of the ground or crushed waste that unavoidably supervenes from the dressing into shape of hones, whetstones, &c., at the quarries, mixed with which material may be a suitable portion of emery, jasper, diamond-dust, or any other suitable material of sufficiently-sharp grit. With the above ingredients there is mixed a sufficient proportion (which may be twenty per cent., more or less) of Portland or other cement to concrete the composite in any form required, for which purpose molds of the required shapes of usual construction are made to form the rifle, whetstone, hone, &c., into the most convenient shapes for use.

3 represents a metal rod or wire frame, which is made, respectively, to correspond approximately or in some degree with the form, as the case may be, of the rifle, whetstone, &c., to which it constitutes a re-enforce core to prevent the article from breaking. The metallic re-enforce core is preferably made in the form shown in Fig. II when it is intended to form a core for a rifle for sharpening knives, &c., in which case the three-fold metal strands 4 of the frame are

preferably formed in this wise: The strands are made of two pieces of rod or wire, the piece 5 being slightly over twice the length of the piece 6, and the said piece 5 is bent around in the middle, so as to form the narrow loop 7, that projects sufficiently from the base of the composite to form an eyelet 8, in which the suspension-ring 9 is mounted, which ring provides the means for hanging the rifle on any convenient hook or peg when it is not in use. The stretch of rod on the two sides of the loop 7 runs for a short distance from the eyelet nearly on parallel lines, when they mutually diverge to form the shoulders 10, from which shoulders they again converge, so as to taper toward each other in straight lines to the point 11 of the core. The base end 12 of the piece 6 is seated and preferably soldered to its seat between and to the parallel wires of the loop 7 and at the same point that the two sections of the piece 5 diverge to form their shoulders 10. That of the piece 6 also diverges to form a like shoulder, alike marked 10, from which the rod or wire runs in a straight line, as do the sections of the piece 5, to the point 11, where all three point ends are preferably soldered together.

The above-described metal frame is placed in the center of the mold in which the composite is shaped or molded to construct a rifle for sharpening knives, &c., and the composite is filled into the mold and shaped therein to the form of the mold, which rifle is shown in Fig. I, the eyelet and ring projecting from the base end of the molded form.

When the device is constructed in the form of a rifle, as shown in Fig. I, the rifle near its base end is curvilinearly recessed, so as to form a convenient hand-hold 16 when in use.

The object of this invention is fivefold—namely, first, to utilize the waste from hone and whetstone quarries; second, to amalgamate therewith any sharp-cutting grit materials desired—such as emery, jasper, diamond-dust, &c.—according to the either fine or coarse nature of the whetstone required; third, to cement the composite in molds formed of a suitable shape for the construction of either the rifle, the whetstone, or the hone; fourth, the cementing of said particles together in molds formed of the requisite shape to accord with the work required to be

performed, and, fifth, the embodying in said composite in the center of said molded form of a metallic re-enforce frame that provides a backbone-like strengthening device to the
5 same.

I claim as my invention—

1. In a composite whetstone or hone, the combination of a metal re-enforce core 3, provided with the loop-extension 7 at one end,
10 and the composite 2, that is molded around said core, substantially as and for the purpose set forth.

2. In a composite whetstone or hone, the combination of the metal re-enforce core,
15 said core being enlarged within the whetting

part of the tool and reduced at the handle end, and the composite of crushed material molded into suitable form around said core, as herein set forth.

3. In a composite whetstone or hone, the combination of a metal re-enforce core consisting of a number of arms tapering toward the point of the tool, with a composite of sharp mineral granulates concreted together with cement and molded around said core
25 into any suitable form, as herein set forth.

OMAR A. STEMPEL.

In presence of—

THOS. KNIGHT,
E. S. KNIGHT.