

May 6, 1924.

1,492,633

V. E. HEYWOOD

METHOD OF PREVENTING CHANGES IN CASTING NUMBERS.

Filed July 13, 1921

2 Sheets-Sheet 1

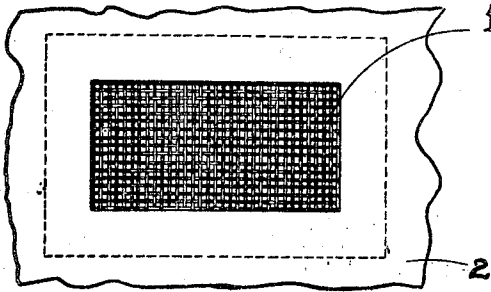


Fig. 1

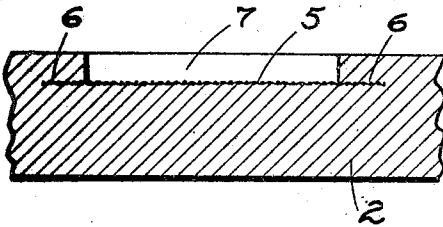


Fig. 2

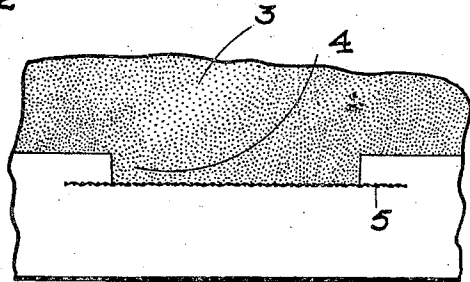


Fig. 3

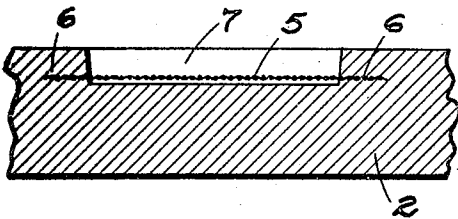


Fig. 4

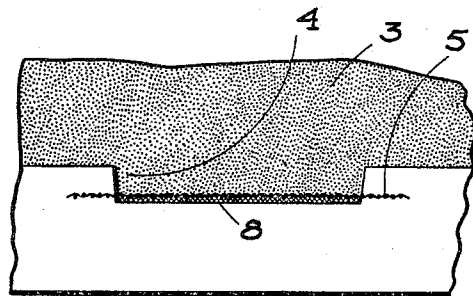


Fig. 5

Inventor:

V. E. Heywood

By *Wm. F. Kennedy*
Attorney.

May 6, 1924.

1,492,633

V. E. HEYWOOD

METHOD OF PREVENTING CHANGES IN CASTING NUMBERS

Filed July, 13, 1921

2 Sheets-Sheet 2

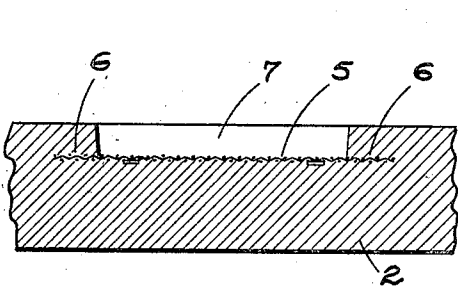


Fig. 6

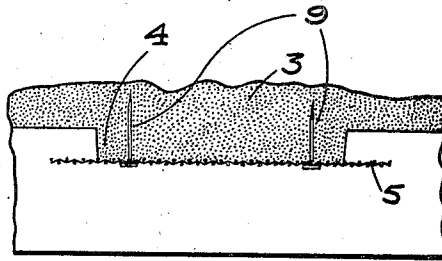


Fig. 7

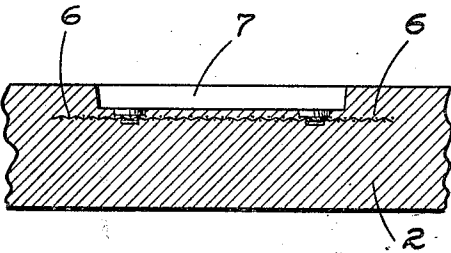


Fig. 8

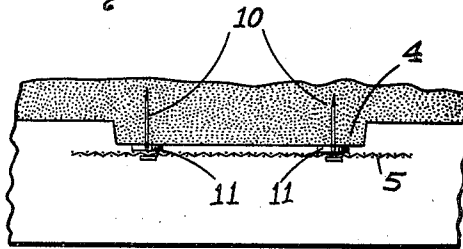


Fig. 9

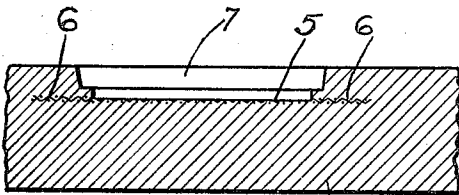


Fig. 10

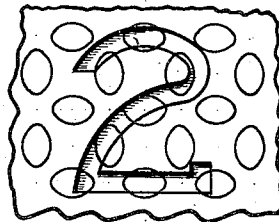


Fig. 12

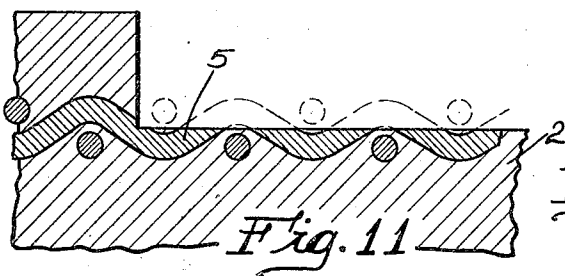


Fig. 11

Inventor:
V. E. Heywood
By Geo. H. Kennedy
Attorney.

UNITED STATES PATENT OFFICE.

VINCENT E. HEYWOOD, OF WORCESTER, MASSACHUSETTS.

METHOD OF PREVENTING CHANGES IN CASTING NUMBERS.

Application filed July 13, 1921. Serial No. 484,448.

To all whom it may concern:

Be it known that I, VINCENT E. HEYWOOD, a citizen of the United States, residing at Worcester, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Improvement in a Method of Preventing Changes in Casting Numbers, of which the following, together with the accompanying drawings, is a specification.

The present invention relates to a method of protecting against alteration the numbers or symbols that are stamped or otherwise impressed on machinery and the like; more particularly, the invention is applicable to the identification numbers of motor vehicles, as stamped by the makers of such vehicles on the engine bed plates or cylinder castings. When an automobile is stolen, the subsequent detection of the theft and identification of the machine is rendered extremely difficult because the thief invariably obliterates the original stamped identifying numbers, and substitutes spurious numbers in the same location; and with the present methods employed for placing these numbers on the metal surface, it is impossible to detect whether the identifying numbers of a supposedly stolen machine have or have not been changed.

The present invention contemplates a method of applying the numbers, in the first instance, in such a way that obliteration of same is rendered more difficult than heretofore; more important still, the invention involves the taking of positive steps whereby, in case a change of numbers has actually been made, such change can be instantly detected, thus establishing the fact that the property has been stolen. The invention is fully set forth in the following description, reference being had to the accompanying drawings, wherein

Fig. 1 shows a portion of the surface of a casting, especially prepared by the present method for the stamping of the identification numbers thereon.

Figs. 2 and 3 show respectively a section of the casting, and the sand mold wherein said special surface is prepared.

Figs. 4 and 5 are views similar to Figs. 2 and 3, showing a slight modification in the manner of preparing such special surface.

Figs. 6 and 7 are similar views, showing a further modification in the preparation of said special surface.

Figs. 8 and 9 are similar views, showing a further modification wherein said special surface is prepared below the outside surface of the casting.

Fig. 10 is a section of the casting shown in Fig. 8, but having the special surface exposed by removal of the metal of the casting.

Fig. 11 is an enlarged sectional view of the special surface finally produced by the steps illustrated in Figs. 8, 9 and 10.

Fig. 12 is an enlarged view, showing the way in which an identifying symbol or numeral appears on the special surface produced by the steps disclosed in Figs. 8, 9 and 10.

Like reference characters refer to like parts in the different figures.

The gist of the present invention is the preparation of a special surface, such as indicated at 1, on any suitable part of the casting 2, Fig. 1, said special surface being adapted to receive the identifying symbols or numbers of the casting. The outstanding characteristic of this special surface is that it shall readily and instantly disclose any attempt to obliterate or alter the numbers or symbols that are originally stamped or otherwise impressed thereon, which obviously would not be the case with any other selected surface of the casting where the metal could be filed or machined down, and spurious numbers impressed without danger of detection.

One way of carrying the invention into practice is shown in Figs. 2 and 3. In Fig. 3 the sand mold 3 of the casting provides a portion 4 against which is disposed and held in overlapping relation a perforated metallic sheet 5, the essential property of which is that it shall have a higher fusion point than the metal of the casting 2. Said perforated metallic sheet 5 preferably takes the form of a wire mesh of suitable fineness, the material of which, in addition to having a higher melting point than the casting, should, for best results, be rust proof or non-corrosive.

As shown in Fig. 3, the perforated sheet 5 is held in place by being pressed into the surface of the sand mold 3; when the cast-

ing is poured, the edges of said sheet are embedded in the metal, as shown at 6, 6 in Fig. 2, the main portion of the sheet being exposed on the face of the casting 2 and lying in contact with the bottom of recess 7 of said casting. When the identifying symbols or numbers are stamped or otherwise impressed in said recess 7, the sheet 5, substantially integral with the casting, receives in part at least the impressions which are carried through to the metal of the casting; obviously, no alteration of said impressions can be made without filing or milling below the bottom surface of recess 7, and this would necessitate the destruction of the sheet 5, thereby revealing at once, for any make of automobile or machine known to have been stamped in accordance with the present invention, the spurious character of any substituted numbers or symbols.

The modification of the invention illustrated in Figs. 4 and 5 involves, in addition to the foregoing, merely the use of a core print 8, which covers that portion of the sheet 5 lying against the projection 4 of sand mold 3. As a result of this core print 8, the sheet 5 of the finished casting is spaced slightly above the bottom of recess 7; this entails a complete perforation of the sheet by the devices which stamp or otherwise impress the symbols or numerals on the bottom of said recess. As in the first described form of the invention, it is impossible to make any change in the original numbers or symbols without destroying the sheet 5 and thus making detection of such change an easy matter.

In the form of the invention shown in Figs. 6 and 7, the sheet 5, instead of being pressed against the surface of projection 4 of sand mold 3, is held on said surface by any suitable means such as pins 9, 9. This results in making the sheet 5 substantially flush and integral with the bottom recess 7, as shown in Fig. 6, with the under surface of said sheet embedded in the casting 2. As before, no alteration in the numbers or symbols stamped or impressed on the bottom of said recess can be made without completely destroying the original appearance of said recess.

As shown in Fig. 9, the sheet 5 is held in the sand mold by suitable pins or other devices 10, 10, said sheet being slightly spaced from the projection 4 of said sand mold by washers 11, 11, or the like. In the completed casting, as shown in Fig. 8, the sheet 5 is entirely embedded in the metal of said casting, below the bottom of recess 7. When this expedient is employed, it is necessary, in order to prepare the special surface, to cut the recess 7 slightly deeper, as by end milling or machining. This operation, as shown in Fig. 10, removes a portion of the sheet 5 and exposes

other portions of the same, so that a surface of distinctive and characteristic appearance is presented. In the case where a wire mesh is used for the sheet 5, the upper portions of the wires will be removed by the milling operation, as shown in section in Fig. 11, and in plan in Fig. 12, both of these figures being on a greatly enlarged scale. The distinctive character of the special surface thus presented is indicated in Fig. 12, whereon is shown a stamped number or symbol; it is impossible, obviously, to obliterate or change in any way this symbol which, it will be noted, is necessarily formed both in the metal of casting 2 and in the metal of perforated sheet or wire mesh 5.

I claim,

1. The herein described method of preventing or detecting changes in the identifying symbols or numbers of castings, which consists in impressing said numbers, after the casting operation, on a special surface, formed in the casting operation and susceptible of obstruction or defacement when said identifying symbols or numbers are obliterated or altered.

2. The herein described method of preventing or detecting changes in the identifying symbols or numbers of castings, which consists in providing, integrally with the casting, a special surface having a characteristic appearance, and thereafter impressing numbers or symbols on said surface, in such manner as to render necessary the impairment of said appearance, by any obliteration or alteration of said numbers or symbols.

3. The herein described method of providing identifying symbols or numbers on machinery and the like, which consists in casting integrally with the member to be numbered an exposed metallic sheet of characteristic appearance, different from the metal of the member, and impressing the identifying symbols or numbers in part on said sheet and in part on said casting, whereby to render necessary the destruction or defacement of said sheet, in order to obliterate or change said numbers.

4. The herein described method of providing identifying symbols or numbers on machinery and the like, which consists in casting integrally with the member to be numbered a perforate sheet in association with an exposed surface of the casting, and forming the identifying numbers or symbols partly in said sheet and partly in said casting.

5. The herein described method of providing identifying symbols or numbers on machinery and the like, which consists in casting integrally with the member to be numbered a perforate sheet in overlying relation to an exposed surface of the casting,

and stamping the numbers or symbols on said exposed surface, through said perforate sheet.

6. The herein described method of providing identifying symbols or numbers on machinery and the like, which consists in casting integrally with the member to be numbered a perforate sheet partly imbedded in an exposed surface of the casting, and forming the identifying numbers or symbols partly in said sheet and partly in said casting. 10

VINCENT E. HEYWOOD.