

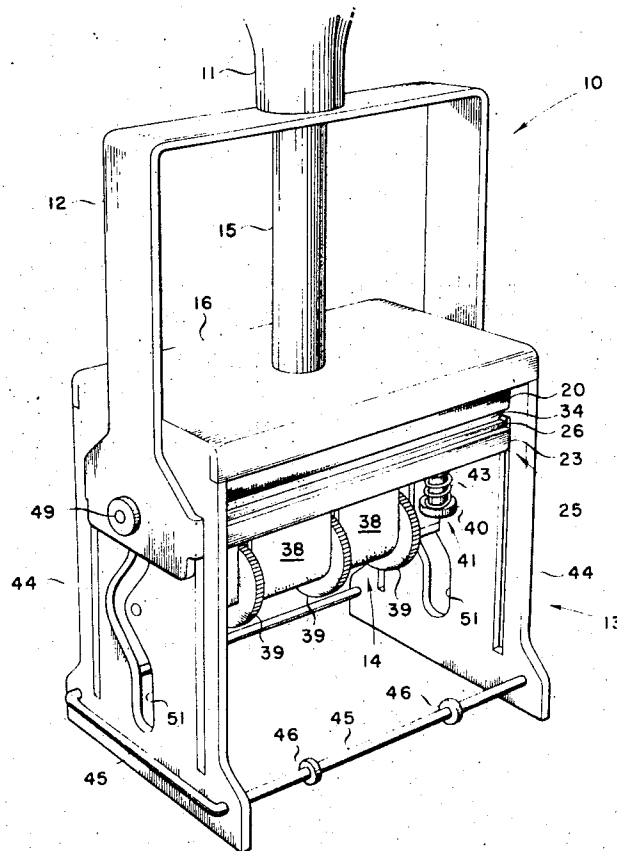
[54] **RECIPROCATING HANDSTAMP WITH
MAGNETIC PLATE HOLDING MEANS
FOR REMOVING THE PLATE**[76] Inventor: **Gerald P. Robinson**, 1940 North At-
lanta Rd., Apt. 13B, Smyrna, Ga.
30080[22] Filed: **Dec. 3, 1970**[21] Appl. No.: **94,916**[52] U.S. Cl.**101/382 MV**, 101/334, 101/104[51] Int. Cl.**B41f 27/02**, B41k 1/06[58] Field of Search.....101/103, 104, 105, 327, 334,
101/368, 382 MV[56] **References Cited****UNITED STATES PATENTS**

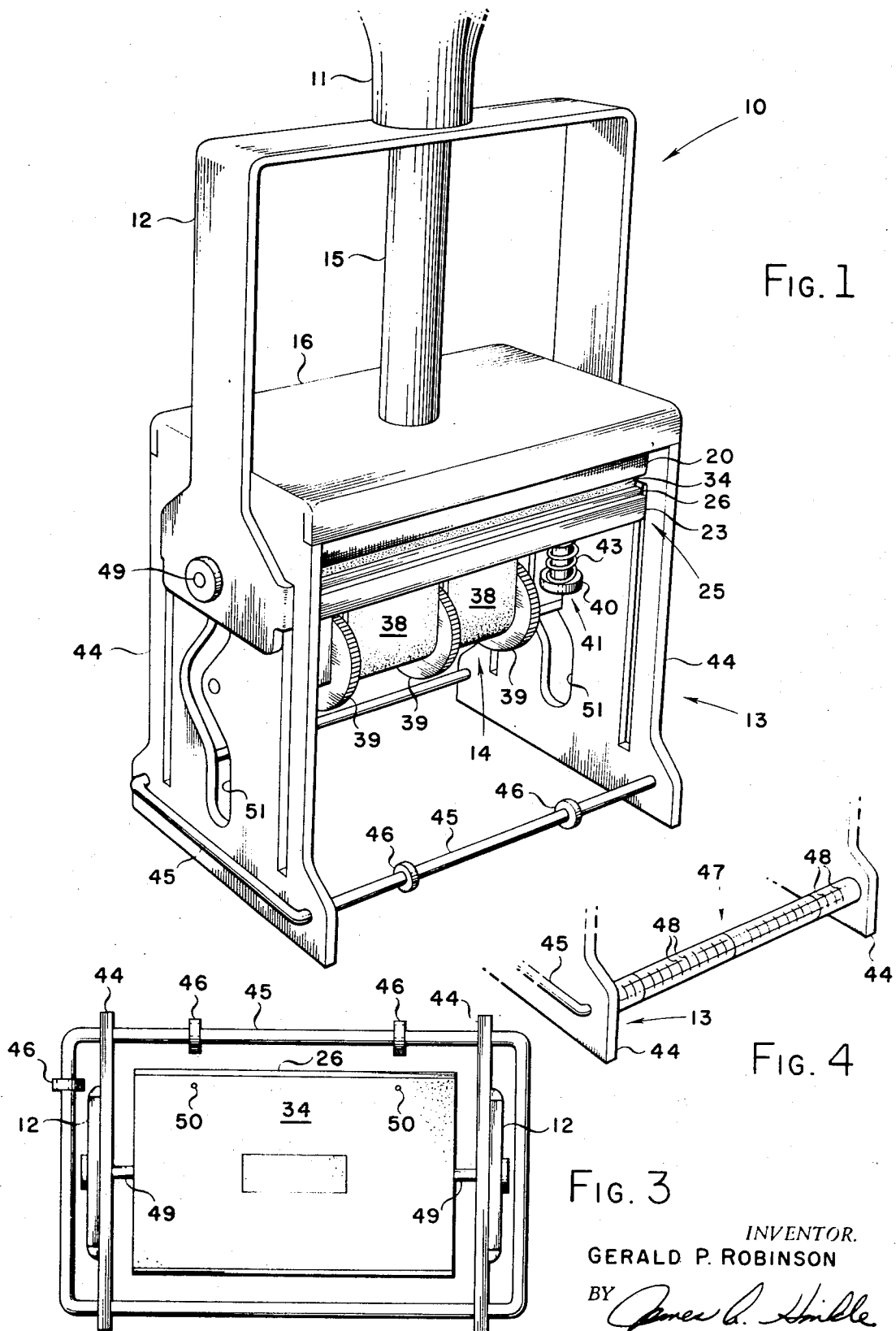
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Primary Examiner—Robert E. Pulfrey*Assistant Examiner*—E. M. Coven*Attorney*—James A. Hinkle[57] **ABSTRACT**

A stamping machine having a removable resilient indicia bearing member adapted to imprint indicia upon desired receiving locations. The indicia bearing member is affixed to a saddle which is removably attached to the machine type carrying bed by means of magnetic attraction. A release plunger mounted on the type carrying bed detaches the saddle at predetermined times. Alignment and registry of the stamping machine with the item to be stamped is done by aligning integral indexing devices with index points on the indicia bearing member and desired points on the item to be imprinted. Two methods for proper alignment and registry are shown.

4 Claims, 4 Drawing Figures



INVENTOR.
GERALD P. ROBINSON
BY *James C. Hille*
Attorney

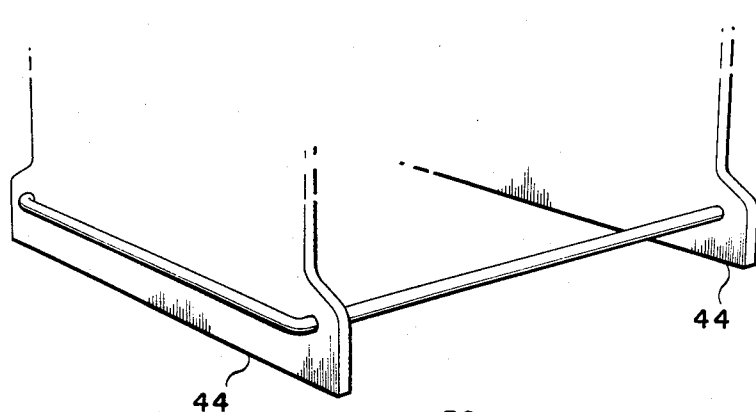
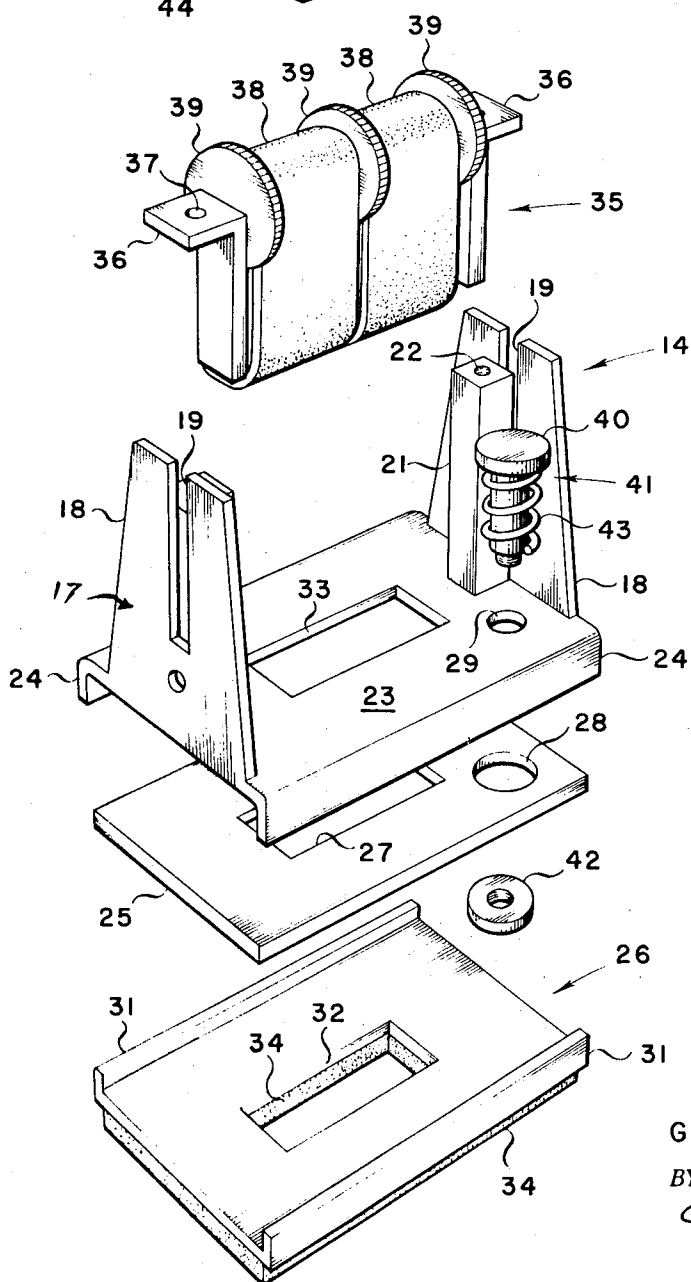


FIG. 2



INVENTOR.
GERALD P. ROBINSON

BY *James Q. Hill*
Attorney

RECIPROCATING HANDSTAMP WITH MAGNETIC PLATE HOLDING MEANS FOR REMOVING THE PLATE

This invention pertains in general to stamping machines and more particularly to mechanical devices having integral ink pads and removable resilient indicia members adapted to imprint the indicia from the resilient members upon desired receiving locations when the machine is operated.

Generally, the prior art discloses stamping machines of the same general configuration having fixed indicia members which are not easily changed to reflect varying requirements except at great expense. The prior art devices are also rather inconvenient to use since they are inflexible and not capable of a wide diversity of stamping operations. An additional problem with the prior art devices revolve around the fact that these devices are not easily aligned or registered with the indicia receiving locations. Obviously, such misalignment problems cause misregistry between the stamping machine and the indicia receiving location. Quite frequently, it is very desirable, and in fact necessary, for the indicia of the stamping machine to be precisely registered upon the receiving location where the job being done calls for precise alignment. Alignment and/or registry with the prior art devices basically is done haphazardly by the operator estimating where the indicia of the stamping machine will fall upon the receiving location. Obviously, such a procedure will result in numerous misalignment problems.

The present invention contemplates as an object thereof a hand-held stamping machine of the self-inking type in which the indicia bearing member is easily removable. The indicia bearing member should be easily removable so that additional members may be easily affixed to the stamping machine. The present invention also contemplates that the indicia bearing members should be firmly affixed to the type carrying bed of the stamping machine by means of a permanent magnet structure. The indicia bearing member is also contemplated to be easily ejectable from the type carrying bed by a spring loaded release plunger. Another object of the invention is to provide a stamping machine, as described herein, with an integral date printing mechanism which is so designed as to imprint through a registered aperture within the indicia bearing member.

Yet another object of the invention is to provide a stamping machine, as described herein, with an alignment and registry mechanism to provide positive registry between the indicia bearing member and the desired receiving location upon the object to be imprinted, thereby eliminating the obvious problem of inaccurate registrations.

Other objects, advantages, and capabilities of the invention will become apparent from the following description, taken in conjunction with the accompanying drawings, showing for purely illustrative purposes embodiments of this invention.

In the drawings:

FIG. 1 shows an overall perspective view of the stamping machine of the present invention;

FIG. 2 is an exploded perspective view of the present invention;

FIG. 3 is a bottom view of the machine in the ready to stamp position; and

FIG. 4 is a partial perspective view of an alternative embodiment of the alignment rod and indexed scale for providing registry for the stamping machine.

Referring to the drawings wherein like reference characters designate corresponding parts throughout the several figures, and especially to FIG. 1, the stamping machine is designated by numeral 10. The stamping machine 10 generally comprises a handle 11, a handle frame 12, and a machine support frame 13. Mounted within the frame 13 is a stamping mechanism 14, shown in an exploded view in FIG. 2. Generally, in use the stamping machine 10 is placed upon the object to which the indicia is to be transferred. The handle 11 is forced downwardly over the handle guide 15, which is fixedly attached to the frame top 16. As the handle 11 moves downwardly, it carries with it the handle frame 12, which in turn causes the stamping mechanism 14 to pivotally rotate 180°, thereby placing the indicia bearing member against the object to be imprinted in a manner to be described.

The stamping mechanism 14 generally comprises a die plate holder 17 for the magnet and saddle. Projecting upwardly from the extreme ends of the holder 17 are identical side members 18 which are generally trapezoidal in shape and have therein centrally located a guide pin slot 19. Located just inwardly of each side member 18 is a mounting post 21 which is internally threaded (as noted by numeral 22) at the uppermost portion thereof. The type carrying bed 23 of the die plate holder is formed with depending side members 24 to form a receiving channel within the type carrying bed 23 to receive the magnet 25 and the saddle 26.

The magnet 25 is preferably of a permanent type and has a rectangular central opening aperture 27. In addition, there is located at one side thereof an aperture 28, which is in registry with plunger aperture 29 in the type carrying bed. The magnet 25 is so designed as to fit within the channel formed by the side members 24 of the type carrying bed 23 and is preferably adhesively secured thereto.

The saddle 26 is constructed of a suitable hard material having upstanding sides 31, which are spaced apart a distance that will allow the saddle to be received between the sides 24 of the type carrying bed. Within a central location of the saddle there is an aperture 32 which is in registry with aperture 27 of the magnet and aperture 33 of the type carrying bed. The magnet 25 should, of course, be of such a size that when the saddle 26 is fitted to the type carrying bed 23 the magnet makes a substantially contiguous fitting against the saddle to thereby exert full magnetic attraction to retain the saddle in place. On the bottom side of the saddle there is affixed the normal indicia bearing member 34 that is desired for use in the contemplated stamping operation. Of course, there is also an aperture within the member 34 which is in registry with the aperture 32 of the saddle.

It should be noted at this point that the various registered apertures 27, 32, and 33, plus the aperture in the member 34, may be omitted from the parts, as described, should it be unnecessary to provide the stamping machine with the dater 35. However, if the dater 35 is to be utilized then, of course, all portions of the stamping machine between the indicia portions of the dater and the item to be imprinted must have aper-

tures therein to permit the dater to be effective. The dater 35 is of a common design having mounting bosses 36 on opposing sides of the dater in which each boss has a screw hole 37, by which the dater is affixed to the mounting post 21 by means of a fastener (not shown) projecting through the screw holes 37 into the threaded portion 22 of the mounting post.

The dater generally comprises several endless information belts 38 mounted upon rollers (not shown) which are turnable to change the indicia desired to be printed by means of rotatable thumb wheels 39. When the dater is properly positioned upon the mounting post 21, the indicia upon the endless belts 38 then project through the registered apertures 33, 27, and 32 and the various interrelated parts included within the type carrying bed. Thus, the dater will additionally imprint upon the object to be printed at the same time the indicia bearing member 34 imprints.

One of the features of the present invention provides that the saddle 26 may be easily replaced with another saddle which will bear a different indicia bearing member 34. Such a procedure provides a flexible arrangement wherein one stamping mechanism or machine may be used and inexpensive indicia bearing members 34 may be changed by the operator by a simple mechanism. This release mechanism includes a release plunger 41 which projects through the plunger aperture 29 of the type carrying bed and aperture 28 of the magnet and thereafter terminating in a nut 42 which is threadably affixed to the shank of the plunger. The nut 42 is of such a size that it fits within aperture 28 and is flush therewith so that the saddle 26 will fit tightly against the entire surface of the magnet 25. The plunger 41, and its associated thumb knob 40, is biased away from the surface of the type carrying bed 23 by means of a resilient spring 43. Therefore, when it is desired by the operator to release the saddle 26 and to replace it with a different indicia bearing saddle, the operator merely depresses the release plunger 41, thereby exerting pressure against the saddle 26 though the nut 42 to break the magnetic attraction between the magnet and the saddle. The saddle is then free to be easily removed from the stamping machine.

As pointed out above, one of the objects of the invention is to provide the operator with precise registry upon the article to be imprinted. To assist the operator in this endeavor, a registry means is provided wherein the machine support frame 13 at the lowermost portion of the frame sides 44 is equipped with an alignment rod 45 which encompasses the periphery of the support frame 13. The alignment rod is provided with, in the embodiment shown in FIGS. 1 and 3, alignment rings 46. These rings may be positioned laterally across the alignment rod 45 in a precise spaced relation with one another and the frame, so as to provide an indexing system for positioning the stamping machine in precise relative locations upon the object to be imprinted. For example, the operator would know that a particular spacing of one or more of the alignment rings 46 on the alignment rod, when placed upon matching positioning marks on the object to be imprinted, would properly align the stamping machine. The alignment rings may preferably be of resilient plastic or rubber and slipped upon the rod initially. To move the rings it is merely necessary to slide the rings around the rod, as desired, by manual motion.

In order to properly match the alignment rings 46 with a particular portion of the indicia bearing member 34, there are provided several index points 50 which may be at known positions on the indicia bearing member. By aligning the rings 46 with index points 50 the operator will be able to precisely position the stamping machine 10, and consequently the indicia bearing member 34, upon the item to be printed.

A second embodiment of the alignment system is shown in FIG. 4, wherein the alignment rod 45 would preferably be covered by a clear plastic flexible cover 47 indexed with a suitable incremental scale, as shown by markings 48. Preferably, the cover scale 47 would be the length of the exposed alignment rod and would be of split construction that would be easily placed over the rod before use. Of course, the scale with which the alignment scale cover is indexed would be a matter of choice, depending upon the desired use.

In operation of the stamping machine 10, the operator would normally initially decide whether the dater 35 is to be utilized, and if so, the dater would be set for the desired information by turning the wheels 39 to rotate the endless information belts for imprinting through the apertures 33, 27, and 32. The operator would then place a correct saddle with the desired indicia bearing member thereupon in registry with the type carrying bed 23. The stamping machine then would be placed upon the item to be imprinted by utilizing the alignment system just described, whereupon the operator would then depress the handle 11 which would reciprocate downwardly, causing the stamping mechanism 14 to rotate 180° away from the ink pad 20 as the guide pin 49 follows the guide slot 51. This particular operation of the stamping machine is known to those skilled in the art. Of course, before the handle is operated the stamping machine will have been properly aligned with the item to be imprinted. Thereupon, the handle is continued downwardly and the rotated stamping mechanism will imprint upon the item, after which the handle is released and the stamping mechanism is returned to battery.

Various modifications may be made of the invention without departing from the spirit scope thereof, and it is desired, therefore, that only such limitations shall be placed thereon as are imposed by the prior art and are set forth in the appended claims.

What is claimed is:

1. An indicia transferring apparatus having a frame member of generally U-shaped configuration which has a frame top and two frame sides, a handle reciprocally attached to the frame top, a stamping mechanism mounted within the frame member, the stamping mechanism having a die plate holder with an integral type carrying bed, the die plate holder adapted to be activated by the handle so that when the handle is reciprocally moved the type carrying bed is caused to move toward an indicia receiving member, a planar magnet mounted on the type carrying bed, a saddle being at one side thereof releasably secured to the magnet by magnetic attraction, the saddle at the other side thereof having a fixed indicia bearing member adapted to apply desired indicia to a receiving member upon reciprocation of the handle, the type carrying bed having depending sidewall locating means and the saddle having upstanding sidewall locating means, the locating means of the type carrying bed matingly engaging the

5

locating means of the saddle to fixedly locate and hold the saddle in juxtaposition thereto, the type carrying bed and the magnet each having first apertures therethrough, the apertures being in alignment with one another, releasing means mounted on the type carrying bed to effect disengagement of the saddle at such times as said releasing means are operated, the releasing means being mounted through both first apertures to thereby lie adjacent to the saddle, the releasing means comprising a release plunger mounted through the first aligned apertures, the release plunger having a knob at one end and being threaded at the other end, the first aperture in the type carrying bed having a diameter less than the diameter of the first aperture in the magnet, a retaining nut secured to the threaded end of the release plunger and being concealed within the aperture of the magnet, resilient means on the release plunger located between the type carrying bed and the plunger knob to maintain the plunger biased away from the saddle, the type carrying bed and the magnet each having second aligned apertures located therein, the saddle and the fixed indicia bearing member each having an aperture therein which is adapted to be in registry with the second apertures of the type carrying bed and magnet when mounted thereto, printing means mounted on the die plate holder and projecting through

6

the second apertures of the type carrying bed in the magnet and the apertures of the saddle and indicia bearing member, whereby upon activation of the apparatus the indicia bearing member and the printing means are caused to bear against a receiving member.

2. The indicia transferring apparatus of claim 1 wherein the frame member has a registration means, said means comprising an alignment rod spanning the two frame sides, indexing means mounted upon the alignment rod, a plurality of index points affixed to the stamping mechanism in known locations which relate directly to known spatial coordinates of the indicia bearing member, whereby when the indexing means are located to align with desired indexing points and predetermined areas of a receiving member the indicia bearing member is positioned to be registered upon a predetermined area of a receiving member.

3. The indicia transferring apparatus of claim 2 wherein the indexing means comprises at least one flexible ring member slidably mounted upon the alignment rod.

4. The indicia transferring apparatus of claim 2 wherein the indexing means comprises a flexible a cylindrical scale substantially covering the alignment rod, the scale having index indicia thereupon.

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