

Correcting Blueprints—An Indicator for the Lathe—Holding Work in the Miller or Shaper Vise.

Editor American Machinist:

Mr. L. O. Danse at page 1834, Vol. 26, wants to hear from draftsmen in regard to changing blueprints. I first apply the prepared erasing fluid until I have a white surface and then use the waterproof ink for making the change. In so doing I have the white surface to work on instead of the blue, as Mr. Danse suggests.

Figs. 1 and 2 show an indicator for centering work on the face-plate of the lathe. By placing the spring, Fig. 2, in a boring tool holder and then hooking the indicator point *A* into the center *B* in the spring, the ring falls over the spring and forms a simple universal joint. The one shown is of a special light construction which obviates all vibration. The work can readily be centered to less than 0.001 inch. It is made in two pieces, as shown, to go in the tool box easily.

Fig. 3 shows a good way of holding work tight on the parallels in the miller or shaper vise. *C* is the work to be machined, *D* the parallels and *E* a strip with edges beveled as shown. The more you tighten the firmer it rests on the parallels. Care must be taken to have the bevel right or the piece will not hold; but if made with an angle of 5 degrees it will hold against the heaviest cuts. E. S. C.

air blast inducer, the jet having an injector action on the surrounding free air, thus forcing it up into the fire. By means of the air cock shown, the blast can be regulated as desired, and a uniform pressure

vers, etc., and is about as light as economical design will allow. Its construction requires 25 pounds of cast iron, 6 feet 7½ inches of ½-inch pipe, 2 feet 6 inches of ¾-inch pipe, three ¾-inch elbows, one ¾-

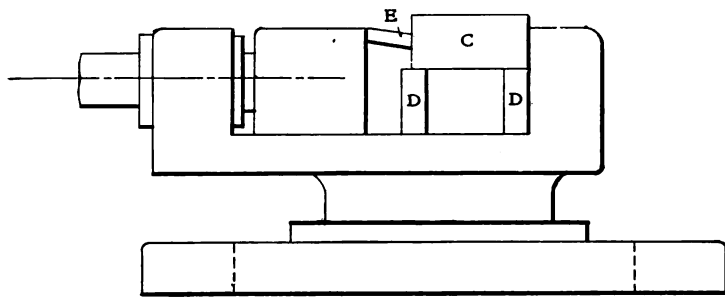
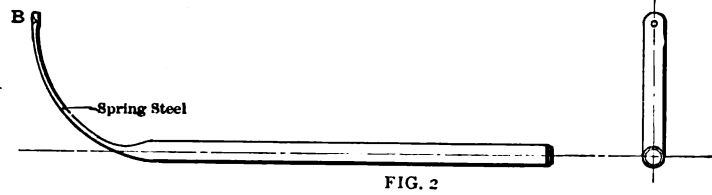
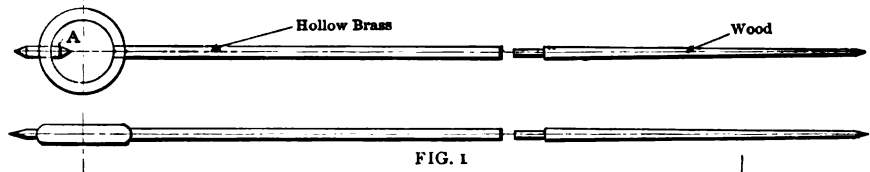


FIG. 3 INDICATOR FOR THE LATHE—HOLDING WORK IN THE MILLER VISE.

A Light Weight Compressed Air Portable Forge.

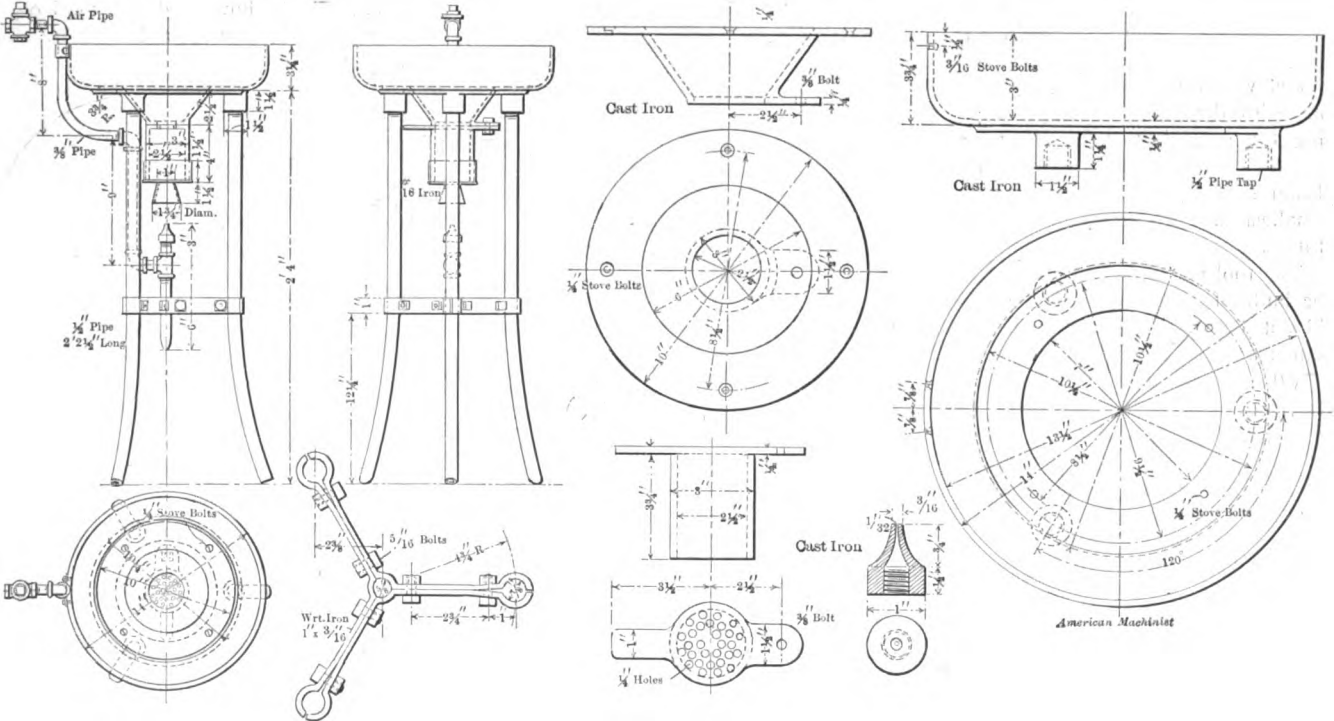
Editor American Machinist:

The drawing shows a portable forge, designed by me, that has proven very effi-

cient in practical service. It is large enough for heating boiler and structural iron work rivets, and at the same is very light and durable. It is fitted with a compressed

produced, thus insuring an even and steady heat. The forge being light, weighing less than 40 pounds, is easily transported and is in no way clumsy, its three legs permit it to rest firmly on an uneven

inch T, one ¾-inch stop cock, one brass air nozzle, 2 feet 9½ inches of 1x7/16 inch wrought iron, seven ¾-inch machine bolts, and six stove bolts.



A LIGHT WEIGHT COMPRESSED AIR PORTABLE FORGE.

cient in practical service. It is large enough for heating boiler and structural iron work rivets, and at the same is very light and durable. It is fitted with a compressed

surface, the fire-pot is easily removed, and the grate or tuyere casting allows the fire to be cleaned from underneath. It is free from moving parts, ratchets, le-

the air jet is about one-twenty-fifth as efficient for the production of blast at a given pressure. Experiments have shown that 1 cubic foot of compressed air will