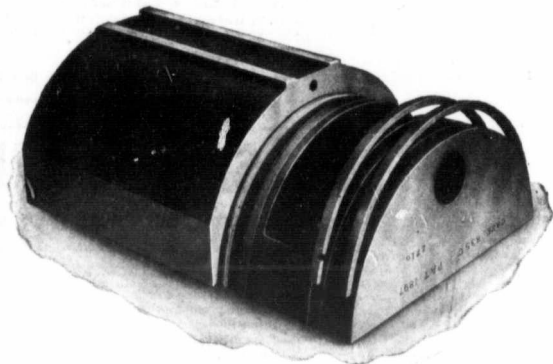


In the January issue of this paper we gave you a partial list of customers of the

GOULD BALANCE VALVE

Who stated, over their own signatures, that the valve did exactly what the company warranted it to do; that it fulfilled every condition of their printed warranty; and was one of the best investments ever made of that amount of money. We have thousands of such letters in our files, but lack of space prevented their publication. ONE MAN might test the valve and be mistaken; even TEN MEN might be wrong in their conclusions, but SIX THOUSAND engine operators could not be mistaken.



One of our agents who has sold the Gould Balance Valves for three years and has equipped every engine in his territory, writes us:

"I have not heard a word of complaint on all of the Valves that I have sold, and I think that this is proof enough that it fulfils every condition of your printed warranty."

This agent is only one of the many hundreds who say the same, and is a sample of the satisfaction exhibited by our agents who have sold the Gould Balance Valves for the past three years.

In view of the above facts ask yourself the question: "Can I afford to go without a Gould Balance Valve?" As every engine owner either needs increased power or a corresponding saving in fuel, water and oil, have his engine work easier, handle easier, and do better work; he can only give one answer to the above question, and that is to equip his engine with a Gould Balance Valve.

The valve is warranted for five years, and is guaranteed to increase the power of a traction engine from 18 to 30 per cent. Write us for catalog which explains it fully.

Gould Balance Valve Company, Kellogg, Iowa

GEORGE WHITE & SONS, LIMITED, LONDON, ONTARIO
MANUFACTURERS IN CANADA

the soft layer inside and the two layers of hard, crucible steel on the outside. This process gives a uniform thickness of hard wearing surface, which takes a high temper evenly and perfectly, and the soft centre gives toughness and enough elasticity to prevent breaking like glass. It is well to note that the crucible steel used on the outside of this grade of soft centre is a very refined product and differs materially in quality from the open hearth stock used to produce the other grade of soft centre steel, as will be explained.

The other method is to take a soft, open hearth steel and carbonize it on the outside. This process can be likened to dipping a piece of bread in molasses. The soft, open hearth plate is virtually soaked in carbon so the outside portions will take a high temper, leaving the inside portion soft, and very low in carbon. Two defects in this process will suggest themselves to you. First, the quality of stock used as the foundation. Open hearth steel used in this process is not so refined as crucible, but contains many of the impurities of the ore from which it is made. The plate cannot always be carbonized to uniform depth, hence the hard wearing surface is not even and reliable.

The highest grade plow bottoms are made from the soft

centre steel last described. The outside plates are uniform in thickness, fine in texture, and so hard they will take the highest polish, enabling the plow to scour in difficult soils and under varying conditions which are encountered during the season in the great corn and wheat belt. Briefly, this describes something of the form and make-up of the back-bone and the heart of a plow.

Now consider the share, without which the best plow would be useless. They say a stream cannot rise higher than its source. It is hard to understand how a plow is really much better from a working standpoint, than the—

SHARE.

The share is a vital part of a plow, although frequently very little attention is given this important member. The country is flooded with cheap, spurious shares. There are several institutions manufacturing shares and selling them for use on good plows of standard make. These spurious shares usually are branded or stenciled with the name of the plow on which they are to be used, or with the name of the manufacturer of the plow. The farmer buys such shares thinking they are genuine and made by the same manufacturer whose name is on his favorite plow.

It is not desirable to describe in detail how each manufacturer

makes shares for his plows, but here are a few things you can take for granted. Spurious shares are made to sell for a less price than the genuine and are from light stock, inferior in quality, workmanship and finish. They are rarely upset and thickened at places of greatest wear and they do not have an extra layer of hardened steel at the point and shin. They are not of uniform temper or size and will not fit or wear well. Generally, the landside is made of iron in place of steel, and is not inseparably attached to the share. Actual tests have shown that frequently a blow of only 215 pounds would separate the landside from a bogus share, while it took repeated blows of 504 pounds to injure the lap weld on the highest grade shares.

We have had a glance at the backbone, the heart and the teeth of a plow. In every truth, "beauty is only skin deep." Let us raise the curtain on the next act noticing some of the corns, carbuncles and imperfections of the body or—

FRAME.

It would astonish you to know how many frames on Sulky and Gang plows are made from soft steel stock, running as low as 10 to 12 points carbon. There is a better or medium grade of plows having frames made of 30 to 40 points carbon stock, while the

strictly high grade frames run from 50 to 60 points carbon.

All that has been said about beam stock applies with almost equal force to frames. Soft frames, under hard usage, are likely to spring and "set." The defect may not be detected for some time, but the nice running qualities of the plow are much impaired.

Frames of high carbon steel like the best plow beams, will spring back to shape when forced out of line under heavy strain. They have the strength and elasticity, not only to give proper service in the matter of wear, but they are stiff enough to maintain all the adjustments of the plows themselves.

The importance of a frame stiff enough to maintain all adjustments of the plow can be impressed on the mind. Just try to do a good job of whittling with a knife blade loose in the handle.

In the human body the parts most subject to rheumatism are the joints. On a plow, look well to the—

CASTINGS.

When breakage occurs on a plow, it is nearly always a casting and not a steel part. This is especially true where gray iron castings are used to any extent in plow construction. The best plows, to-day, are practically without gray iron in their make