CORRESPONDENCE

[This department is a meeting-place for ideas. If you have any suggestions as to new methods or successful methods, let us hear from you. You may not be accustomed to write for publication, but do not hesitate. It is ideas we want. Your suggestion will help another. Ed.]

GOOD SHOP PRACTICE.

Sir,—In reply to the letter from "Enquirer" in your issue of June 26th in reference to the punching of tube holes in boiler heads. For your enquirer's information I wish to say that it is not only not good practice to punch the tube holes, but it is exceedingly bad practice to do so. This practice was inaugurated many years ago in the United States for the purpose of cheapening or lessening the cost of the manufacturer. Large punching machines were made for punching tube holes. It had a very detrimental effect on the boiler heads, buckling and bending exceedingly. Then the tube holes were out of round on account of this buckling and bending, and the heads would afterwards have to be straightened and the holes reamed out, and the cost would be practically about the same as if the holes had been bored or drilled in the first place. It is not only bad practice to punch the tube holes, but it is bad practice to punch any of the holes in the boiler plates and in first-class shops very little punching is done in any part of the steam boilers, and particularly for high pressure.

It is after 42 years practical experience in boilermaking and boiler-building that I have arrived at this conclusion.

Yours truly,

Polson Iron Works, Limited,

JOHN J. MAIN,

Vice-President and Manager.

Toronto, June 25th, 1908.

GOOD SHOP PRACTICE.

Sir,—In reply to inquiry as to whether "it is considered good shop practice to punch the tube holes in the boiler heads," etc., I would say it is not good practice to punch the holes in any boiler heads unless sufficient metal is left for reaming out all that in which the particles have been disturbed by the punching. If this amount has been left it is quite allowable in sheets up to say 5-16-inch thick for small tubes to punch the holes as a first operation provided again the punch and die are in first-class condition, and the punching in no way distorts the metal by bending, etc., the bridges between the tubes. The amount of metal necessary to leave for reaming depends entirely on the condition and sizes of the punch and die. The metal found by careful observation and test to be disturbed by punching in a 5-16-inch sheet extends when punches and dies are in first-class order to 1-32-inch outside the edge of die, therefore not less than 3-32-inch should be left all round for reaming or for a two-inch tube the hole punched should not be greater than 1 13-16-inch. It will be seen, however, that the above shows dependence on several conditions and unless the very greatest care and conscientious practice is exercised in keeping up the tools to first-class condition it would not be good shop practice to punch the tube holes as above described. The question may, however, be answered by saying that where good shop practice is followed in care and maintenance of tools the punching as above may be classed as safe practice but where tools are not kept up it would not be safe practice.

Toronto, June 23rd, 1908.

J. W. H.

GARBAGE DISPOSAL.

Sir,—The matter of garbage destruction is a live one in every city. Seattle has experimented with the question for some time, and thinking that your readers might be interested in our experiences I send you a few observations on this matter.

The burner which we have cost something in excess of $50,000. It is burning 60 tons of garbage at the present time. The trouble is that our city engineer, Mr. Thompson, (whom I consider to be a man of absolute honesty and great ability in certain lines, (though not in the garbage burning line), insisted that the burner would burn, without fuel, 60 tons a day at a cost of not to exceed 35 cents per ton. Upon this statement he and the then mayor succeeded in forcing on the city this Meldrum Burner. The lowest cost at which they have yet been able to burn garbage has been 79 cents per ton. The crew was put on, I believe, as employees of the street department, the superintendent being paid but $85 per month (and having already served notice to quit, unless he is raised to $125). The work has constantly been in charge of the assistant city engineer, who has been paid a large salary, but whose salary is not charged against the expense of the crematory. It is reasonable to say that it will cost $1 per ton to burn garbage of this class which is at present being burned in the crematory. It is located in a district which is being fed from the retail store district of the city, largely, and from my observation the forenoon garbage is 95 per cent. dry goods, boxes and paper. None of the city's heavy garbage goes into it at present. It requires a large crew of men—I believe six stokers all the time, a foreman and some sorters. The way they are doing it is to take the morning garbage, where it is put out in large piles to offend the public, sort it over and pick out the wood and fuel. Then in the afternoon, when the wetter garbage comes on, the fuel in the morning collection is used to make the afternoon fire. It was necessary to dump the grates several times in the course of a day's burning, necessitating the going out of the fires in those particular cells.

While I personally know little of garbage burners, save what I have read, it must be apparent to anyone that, as a source of steam supply, they are valuable only for what they will produce at the minimum heat of the burners. This, of course, is liable to become very low under a supply of wet garbage.

My own objection to the Meldrum Burner in the first place was based upon the failure at Sacramento, at California, which was complete, it having been found necessary to install oil burners in the furnaces, and I am informed that they have proved worthless.

I am satisfied that, if this burner which we have were to be placed in a position where it became necessary to handle the average city garbage, it would not burn at all without fuel. I have just returned from Spokane, where they are running a Decarrie plant, and installing another. They are burning there at a cost of less than 20 cents a ton. They have a 40-ton burner, which has been in use about six years. They start in the morning with a little fuel and from then on it is self-burning, and the 20 cents includes the cost of the fuel. It possesses the great advantage that all garbage is dumped through a trap door immediately into the burners, and there is no nuisance of a garbage pile, which must always accompany the Meldrum. While I am not seeking to advance any particular burner, it appears to me that this is one great advantage. The ash-heap surrounding the Spokane burner for six years' continuous service is to-day less than the ash heaps surrounding ours for three months' service. The Spokane people tell me that it is impracticable to figure upon any garbage burner as a source of steam supply, by reason of