

February 19, 1932.

Mr. A. W. Hecker,
1976 East 66th Street,
Cleveland, Ohio.

Dear Mr. Hecker:-

Please find enclosed our check for \$1,331.11 in payment of your invoice of the 8th less cash discount.

The shipment of wrenches was received last night and we are convinced that the jaws will not do at all. A considerable number of the movable jaws have water cracks in them and break very easily. It seems to us that these jaws with flaws should be replaced by you, but we are leaving that matter for a mutually satisfactory adjustment. Case hardening will not be satisfactory as it is only surface deep and the teeth cannot be sharpened.

Please make the changes in dies and tools as per sketches sent with the exception that the scale of the teeth details is to be 4" equals 1" -- in other words, we want the teeth to be 1/8" from center to center. We do not want the backs of the stationary jaws machined out as this weakens them too much even with the extra metal we are having put in them. You will find sketches attached showing another change we want made in the stationary jaw dies.

Please proceed to manufacture and ship 1000 each of the movable and stationary jaws as per your wires of the 17th and 18th. Inclose with the jaws 2000 of the stationary jaw rivets. Ship 100 each of the jaws by express as quickly as possible and let the balance follow by freight.

With reference to the metal and heat treatments to use on this lot of jaws, we make the following proposition to you. You are in position to secure reliable technical advice. What we want you to do is take the blueprints and a sample of the wrench to a reliable engineer and thoroughly discuss our problem with him. We believe S A E #3155 with the proper treatments will prove satisfactory, but we are leaving the matter of steel and treatments entirely up to you and the engineer you consult. We will pay the engineer's fee and allow you something for the time you spend with him if you so desire. The engineer's fee should not be more than a few dollars for the necessary information, but we certainly want you to see someone who knows his business.

You are familiar with what we require for the jaws, and your engineer should know what is necessary for a practical pipe wrench. We want good hard gripping teeth, but would like to caution against getting the jaws too brittle. This is

especially true of the rack. The toughness necessary for the rack teeth will probably require that the temper be drawn a little more in the rack than in the head of the movable jaw.

After you have satisfied yourself that you have the right steel and treatments specified, you may proceed with the jaws immediately. We are giving you a free hand in the selection of steel, and will expect you to assume complete responsibility for delivery the quality jaws we require. You will have supervision over production and inspection and should have no difficulty in giving us uniform quality free from water cracks and other defects. You will guarantee the jaws to be satisfactory.

Our proposition is based on the conviction that you will play the game right with us. We feel that you are personally interested in getting these wrenches made up right to the end that a nice business can be developed for your shop. You are in position to secure the necessary technical information, and can save us both time and money. Taken as a whole, we feel that our proposition is fair to both of us and offers the best solution to our problem.

Please wire if we have not made ourselves perfectly clear.

Yours very truly,
THE HARRIS WRENCH COMPANY, INC.

JPF:F
Enc: Check
Sketch

General Manager