

CHAPTER XXV

Useful Items.

Tempering—Heat to a cherry red, then rub with soap. Then heat again and dip in clear cold water. The soap prevents scale from forming and does away with the need of polishing to see the colors.

To temper a pick—Put the body of the tool in the fire and leave the point out. When the body is red, heat the point to a dull red. Hammer edgewise first and flatwise afterwards, then file ends a little. Heat to dull red again and cool in rain water with the chill taken off to about $\frac{1}{4}$ inch from the end. Temper to a dull blue. If too brittle carry color a little further. Then cool all over. Work at as low a heat as possible and do not burn the steel. Once it is made white hot it is spoiled.

To renew burnt Steel—

Heat several times to a dull red cooling each time in hot water.
or melt together, mutton fat 10 parts, Linseed oil 10 parts, Lamp black 1 part. Then heat steel and dip in mixture for 1 minute.
or Melt together Rosin 10 parts, Mutton fat 3 parts, Fish oil 5 parts. Heat steel to a dark red and dip in mixture for $\frac{1}{2}$ a minute.

Drill—Temper—

For hard rock temper from light yellow to straw color. Too light will be too hard. Darker than straw color too soft.

To Weld Steel—

Welding compound, 1 part Sal ammoniac, 1 part Borax and a pinch of Alum. Grind together and melt until clear. Pour out, cool, and grind up for future use.

Economy hints—

One of the many makeshifts in prospecting is the use of small crotched sticks for windlass stands. They are cut off a foot longer than the height of the windlass and spiked to the timbers the deck rests on.

Small poles for a deck saves the carriage of lumber.

Often the non-arrival of roofing for a camp makes it necessary to get a substitute. In the spring and early summer spruce and fir trees readily yield their bark for this purpose. The spruce bark is tougher