

Joining Headframe Timbers

by Dave Thorpe

On a recent trip to a mine in southwest Arizona, we encountered a large operation in which the headframe had been knocked down. I noticed that the broken timbers were joined with 3/4 inch bolts and cast iron washers. These are about three inches in diameter. We did not have any wrenches at the time, but were able to chip out a couple of these from the timbers.



They are patented:

May 10-04
Oct 29-7

The raised lettering also reads:

S-T-L. M-G. CO.

Perhaps this is St. Louis Manufacturing Co.
In the center is stamped:

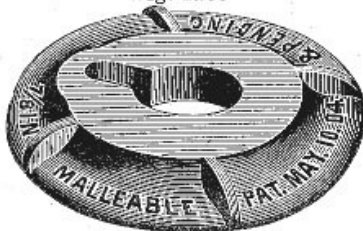
No. 10 MALL 3/4

The meaning of this was questioned over MiningCollect, and Peter Cain took a "wild guess" that it referred to malleable iron. A page from a 1911 Hendrie & Bolthoff catalog proved that he was right. The washers in the catalog even share the May patent date with the specimens found.

626 THE HENDRIE & BOLTHOFF MFG. AND SUPPLY CO., DENVER, COLO.

MALLEABLE IRON WASHERS

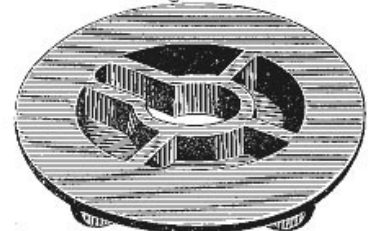
Fig. 2203



TOP VIEW

NAIL HOLE, LOCK NUT

Fig. 2204



BOTTOM VIEW

These washers are of about the same diameter as cast washers, weight about one-third as much, and are several times as strong. They are about one-half as thick as cast washers, and save from one-half to one inch in length of bolt. In most cases they will be found to be cheaper than cast washers, while the freight on them is only one-third as much.

Size, bolt, inches.....	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2
Price, per 100.....	\$2 00	\$3 00	\$4 50	\$7 00	\$9 00	\$12 00	\$20 00	\$25 00	\$27 00	\$55 00
Weight, per 100, pounds.....	7	22	33	50	68	87	150	190	206	420
Diameter, inches.....	2	$2\frac{1}{4}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	6	$7\frac{1}{2}$
Thickness, inches.....	$\frac{1}{4}$	$\frac{3}{16}$	$\frac{7}{16}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$