"On examining the ore-heaps at these mines, I observed that there was but very little pyrites or blends mixed with the galena. So it is very easy to smelt in the common Scotch furnace. It is readily washed clean from the spar by water, after the vein stuff and lead ore are crushed. The most simple working machinery is employed, consisting of nothing but a common strake and a sloping table, the latter being employed to separate the fine particles of lead ore in the waste from the strakes.

"*It is estimated that one gang of four miners can stope out 4 fathoms of the vein per month, and that this amount of vein stuff will yield 8 tons of pure galena or lead ore.*

"The average yield of the ore in the Scotch furnace is 67 per cent. of lead, and some of it yields as high as 75 per cent.

"*One Scotch furnace will smelt twenty pigs of lead per day, each pig weighing seventy pounds. The time estimated as a day in the furnace work is ten hours, which is as long as men ought to work amid the fumes of lead and of sulphurous acid gas.*

"Respectfully yours,

"CHARLES T. JACKSON, M.D.,

"Of Boston, Mass.