

No. 10. Gatling South,	41 28
" 11. " five acres,	550 40
" 12. " "	505 12
" 13. " "	37 84
" 14. Williams mine, tailings,	34 40
" 15. Gatling Company—Shaft, free gold,	440 32
" 16. Gatling roasted steely ore amalgamated,	48 16
" 17. Gatling rich pyrites, raw treatment,	1265 92
" 18. 1 pound average material from first test by a stirring (amalgamating) process,	52 46

18.7 tons of ore from the several shafts of the Gatling Company's mines were then treated by the same parties, the process being roasting and amalgamating; the roasting was very imperfect, being effected in a revolving cylinder only 3 feet diameter and 12 feet long, heated from the outside, and with a strong draught of air forced through it by a blower. The consequence was, that the flue-dust contained much gold, and the roasted ore carried 6 per cent. of sulphur.

The following were the assays of lots of from two to three tons each:

	Ore.	Tailings.
No. 1,	\$30 90	\$30 30
" 2,	41 20	6 67
" 3,	65 23	6 87
" 4,	41 20	6 87
" 5,	51 50	8 58
" 6,	44 71	12 04

Average gold in 18.7 tons was \$35.46 per ton, counting gold at \$20 per ounce.

Gold actually saved was \$25.32 per ton, or 71 per cent. of assay value, while there was still in the bottoms in flue-dust returnable for retreatment, obtainable gold that would have made the yield \$27.31 per ton, or 77 per cent.; and the tailings were extremely rich, and could easily have yielded on shaking tables or belts gold enough to have made the actual yield \$30 or \$31 per ton.

Captain Thomas Couch, Mine Superintendent, in his examination of these mines, in February, 1880, carefully sampled the several mines, taking one and two ton samples of the ore just as it came from each of the shafts and levels, without sorting.

The results were as follows:

	Gold.	Silver.
Tuttle shaft, 2 tons,	\$26.46 per ton.	1.28 ounces.
Deep shaft levels, 2 tons,	16.33 "	.79 "
Middle vein, 2 tons,	32.65 "	1.58 "