

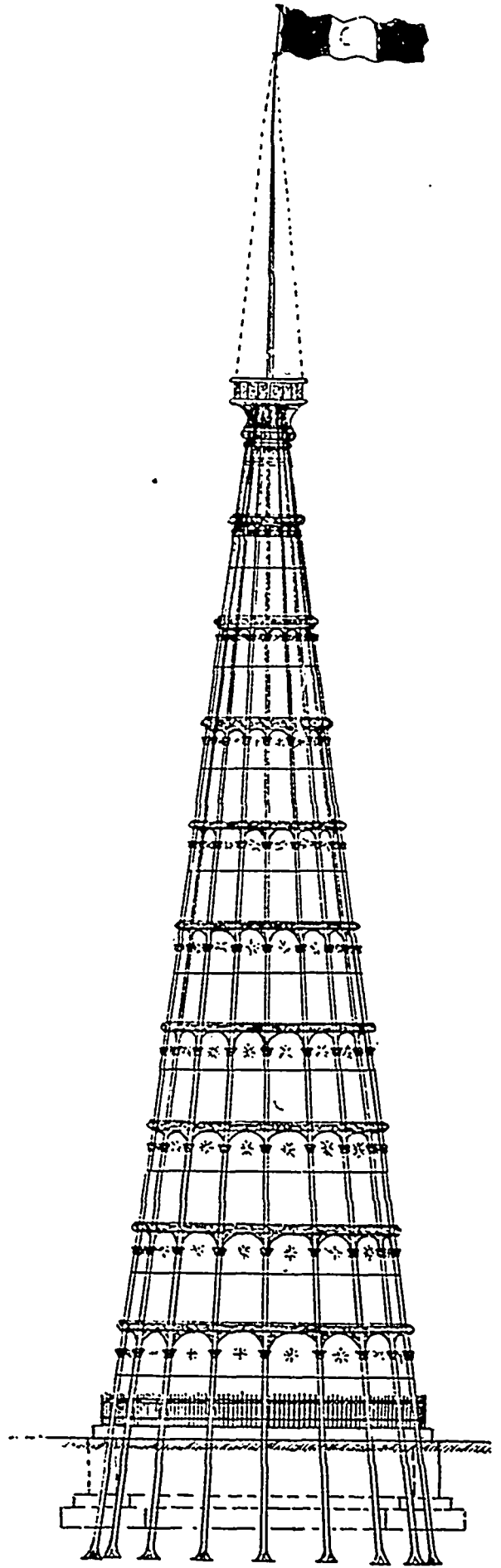
a mine shows gold at all it is worth something to the man who finds it. Any mine that shows gold under this test will run over four dollars a ton, and any mine showing this amount will pay to work it. Assays running over \$15 per ton are not average assays, and not to be depended on. The prospector need not expect to find the gold sticking on in lumps; it does not occur in that form very often. Liquid tests, as a rule, can only be made by expert chemists.

If the ore contains a small amount of arsenic, it cannot be tested by this method, as the arsenic would carry all the gold off with it in the form of vapor. The arsenic can be detected by heating the ore, when the arsenic is given off, and can be recognized by its smell, which resembles garlic. All ores containing a large amount of pyrites will have to be roasted before assaying. Ores containing arsenic can only be tested by an expert analyst, as I have myself seen ores which went as high as fifteen dollars in gold show nothing when tested by assay, so when an arsenical ore is met with, if it does not show gold by this process it should be analyzed. Gold when found in a free state is only in very small white-yellow grains, hardly visible under a magnifying glass. If the capping rock of a mine shows a large amount of iron or rust, it must have a little sand mixed with it to form a good slag. Other little points the assayer will find out as he goes along.

PROPOSED VICTORIA JUBILEE TOWER FOR QUEBEC.

Charles Baillairge, city engineer of Quebec, has recommended to the city council the construction of an iron tower 150 feet high on the Place d'Armes, as a memorial of the Queen's reign. This would be 50 feet higher than the loftiest point of the Frontenac Hotel, the top having a "crow's nest" 10 feet in diameter, surmounted by a flagstaff, having a flag with the word "Victoria" worked into it. The structure, of which a plan is here presented, could be built very cheaply, and the effect of the fireworks and illuminations from such a tower are vividly and dramatically pictured by Mr. Baillairge, as follows:

"The crow's nest on the now proposed pyramid would afford a commanding view of the whole surrounding country, and in the case of an illumination with fireworks, a hundred rockets or more set around its periphery or two or three hundred of them in double or treble tiers, all slightly inclined outwards at an equal angle to the vertical, if simultaneously or together fired by electricity, and soaring skyward another hundred and fifty feet or more, would thus form a sheaf, a monster parachute, opening at some 600 feet above the St. Lawrence, and their component vari-colored stars lighting up the heavens and descending in a fiery shower upon the city, not this time out of God's wrath, as on Sodom and Gomorrah of old, but as a shower of blessings for a munificent reign of 60 years of good and noble deeds. Such a structure would be used on all festive occasions, each of its 160 arches lit by an incandescent light at night with a 10,000 candle power arc light at its summit, or a 100,000 c.p. one, if the city could afford it. Creeper roses might be made to grow around it, and in time to almost cover it, or at any rate it could be festooned with artificial flowers and a bouquet hanging from each of its component arches, diminishing in size as they ascended. On a gala occasion, its usually white drapery could be supplemented to form the 'red, white and blue' of the British, the



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VICTORIA TOWER
QUEEN'S JUBILEE
SCALE 16 FT. = INCH
150 FT. HIGH