

amount at which the property would be taken in payment of a just debt due from a solvent debtor."

Any valuation above that is unlawful. The theory on which the horizontal reduction was based is, that the entire realty of the city was placed above such a valuation; that it was therefore excessive and illegal; and that by reducing it twenty per cent. the intent of the law would be reached.

As to personalty, we understand its valuation was fixed by the returns of the owners, so far as it relates to business firms, banks and other such concerns. At any rate, money is cash, goods have an invoiced cash price, bonds, shares, etc., have a face value. They are all different in this respect to real estate.

But if the Board had no power to make a general reduction in realty, of course it had none as to personalty, and the complainants will gain nothing in the event of their succeeding in preventing the proposed relief to the overburdened taxpayers on real estate. If the realty has been overvalued and the reduction is right, it does not follow that the personalty has been overvalued and should therefore be reduced to make the assessment "uniform." For a dollar in money cannot be overvalued when assessed as a dollar neither can goods invoiced at a certain figure which shows their value, be improperly assessed when placed at that value, particularly if it is fixed or admitted by the owner thereof.

The powers of the Board are defined in the charter and its amendments, and the court will have to pass upon them. Attorneys have different views on the question, as they have on most points of law when they are subjects of litigation. It is important that the majority of the Board of Equalization shall be presented in court by counsel in sympathy with their action. If not, their labors to deal justly and equitably with the taxpayers will have been in vain. The whole question should be fully ventilated, and it should be determined whether the City Council can or can not, as a Board of Equalization or otherwise, not only hear and determine individual complaints, but "alter, add to, take from and otherwise correct and revise" the entire "assessment roll," so as to check exorbitant or inadequate assessments, and render taxation "just and reasonable" as well as "uniform."

On the Missouri-Pacific railroad, about 250 miles west of St. Louis, is a town named Waterloo. Further on is Napoleon, and close to that is Wellington.

THE SUGAR WORKS.

THE Utah sugar factory will probably be in full operation in a few days. The machinery has been thoroughly tested and works like a charm. The only cause of delay is the necessity of awaiting the full ripening of the beets, which was somewhat retarded by the recent rains. The present fine weather will, doubtless, develop them rapidly. The chemical tests of the roots from various localities show the average percentage of sugar and of purity to be at least equal to the same qualities in those produced in any other part of the United States. This is an encouraging fact. The standard of the beets raised on Lehi bench land is somewhat higher than that of samples from any other locality. This is probably due to the fact that these roots—for sugar purposes—do better on the high lands than where the soil is heavier, and also for the reason that in Lehi the crop has received more attention than has been the rule elsewhere. However, the average quality all around is quite flattering.

The location of the factory is admirably adapted to the sugar industry. The water supply is ample for all purposes, the main source being a small lake fed by a number of springs. There are besides a number of flowing wells, which are easily obtainable anywhere on the grounds. At the time the selection of the site was made it was thought by some people that the ground was too soft for the purpose, as the large building would be in danger of settling. This view proved to be erroneous. In going down only a few feet the excavators reached an exceedingly hard substance resembling sandstone formation. It is so compact that in excavating for the silos it is necessary to do considerable blasting. As a consequence the foundations of the buildings could scarcely be better than they are.

The entire premises are illuminated by electricity, which is manufactured on the spot. For this purpose there are two sets of electrical machinery, to provide against emergencies that might possibly arise as the result of accident. There are 250 electric lights. One hundred and sixty of these are in the interior of the buildings and ninety on the grounds and connected with the outlying structures.

The establishment is well worth a visit, everything about it being both interesting and instructive. This must be evident from the fact that popular information in regard to the sugar-making industry is necessarily limited, being as yet of comparatively meagre development in this country. The

factories are also, as a matter of course, widely separated from each other. In viewing the wonderful mechanism associated with this branch of industry, one cannot help being struck with the ingenuity that could have produced such elaborate and exact machinery, which has been brought to an amazing standard of perfection.

The process of sugar making may be said to begin at the beet sheds, of which there will be at least five, and probably six. Several are already complete. These structures are built of timber, are each 500 feet long, 24 feet wide and 10 feet high, and built on an incline. The floors slope from the sides to the centre, where there is a flume, into which the beets fall in order to be put through the first process of washing. The roots are emptied from the wagons into the sheds through apertures in the roofs. When all is ready to begin the work of sugar-making the water at the head of the sheds is turned into the flumes. The beets are not only swished, rolled and cleansed by the force and action of the current, but are carried along to a deeper flume into which all the streams of water and roots converge. They are through this conduit carried into the main building of the establishment.

Inside the building the beets are mechanically conveyed to a piece of machinery where the washing is continued by a rotary process, when they are moved another step forward and knocked around to a lively tune by an apparatus with complicated arms. They are thus freed from all kinds of refuse matter and placed in improved condition to cast their sweetness. The next treatment consists of their being fed into a bucket elevator which runs them skyward to the upper part of the building, where they are received into the embrace of the cutter, a contrivance whose revolutions are so rapid that the roots are sliced into infinitesimal bits to the tune of 350 tons each twenty-four hours.

After being subjected to the foregoing ordeals the resultant mass descends to the floor below, where it is received by the diffusion battery, an exceedingly ponderous section of the machinery. This elephantine piece of mechanism has an important duty to perform—that of expressing the juice from the mass of material.

The pulp—not the juice—is carried to presses where it is relieved of all surplus water. It is then conveyed to the silos, from which it is fed to cattle, it having been practically demonstrated that it has excellent fattening properties. The company has contracted already with a stockman to feed