of the column from one storey to the next. It is, of course, much cheaper to have these strips ripped beforehand in the mill than to have a carpenter rip off a strip for each successive storey. The outside and inside of the exterior column form are not made up of narrow strips for the reason that exterior columns are usually the same width from basement to roof. To reduce the section of an exterior column only the thickness is reduced.

In beam work the "girder" bottom" is supported on the horizontal clamps of the column form, and the beam forms on the girder bottom. Thus all the forms of a floor may be erected before any posts are put in. At any time after the beams are in place the posts are put in and wedged up without any lateral bracing whatever. By this method time and labor are saved. If 2-inch lumber is used for beams, the beams must be at least 2 inches shallower than the girders, in order to allow the beam forms to be supported by the girder bottom.

A wedge-shaped piece in the form of a "key" is inserted to facilitate removal of forms. The flat cover or panel which supports the floor slab is better than the box-shaped type, for the reason that any slight errors in the line are taken up at the junction between cover and beam side, and a slight variation in this dimension is not conspicuous.

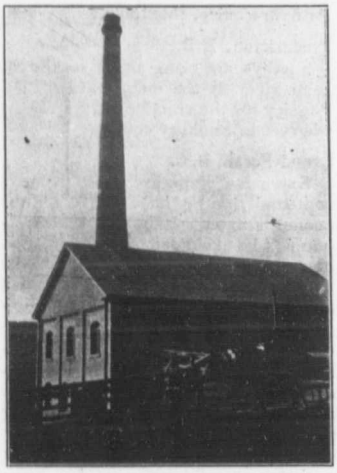
In removing forms, the column forms are first removed. As has been said, the details about the tops of column forms should be so designed that they may be removed without in any way disturbing the beam and girder forms. Next, the posts are taken from under the girder. The girder bottom then drops, and the posts are immediately replaced. The nails are drawn from the key, which is nailed only to the girder side; the key is knocked out, the posts are taken from under the beam, the so-called "spreaders" are knocked from under the cover, and the beam form comes down in one piece. The girder sides, which are beveled at the ends, come out easily as does also the cover, which is beveled on all four edges.

(Continued on page 23.)

Vancouver's New Incinerator Plant.

In Vancouver recently, at the invitation of the representative of Heenan & Froude, Constructing Engineer Slatter, the city council, and the officials interested, were invited to the new incinerator to make a thorough inspection, along with delegations from Victoria and Winnipeg. Colonel C. H. Ruttan, city engineer, and Mr. Greig, who is an expert on such matters, came from the Prairie capital. From Victoria there were Ald. Henderson, chairman of the streets committee; City Engineer C. H. Topp, and Mr. M. Hutchinson, superintendent of the electric lighting department.

The Victoria council are thinking



VANCOUVER INCINERATOR INSTALLED BY HEENAN & FROUDE.

of putting in an incinerator, hence their interest.

Col. Ruttan expressed the opinion this morning that Vancouver was wise in putting in a small plant in one section of the city, thus having the reserve of another plant in another section, with a view to saving haulage.

The visitors had a very thorough chance of inspecting the plant in all its workings and also the subsidiary fumigating plant installed at the instigation of Medical Health Officer Underhill. They saw the sloppy garbage go in and they saw the clinkers, about 36 per cent. of the whole, withdrawn. They noticed the dreadful smell of the loaded wagons and the sweetness of the "finished product." The finished product, however, is not recommended for health food, even by the officials in charge. It is at present found useful in filling in around the premises, and later may be used under cement walks.

Covering for Underground Steam Pipes.

Experience has shown that a good steam-pipe covering for underground use is made of two layers of non-conducting wood (white pine free from all sap), bound together by steel wire and separated by two layers of heavy non-conducting paper. The insulating character of the covering is also greatly increased by the presence of a thin layer of air between each layer of wood and paper. On low-pressure steam and hot water pipes this covering, unlined, gives good results, but if it is to be used on high-pressure steam pipes it should be lined with asbestos, in which case, no matter how high the pressure of steam, no other covering or wrapping is necessary.—"Power."

To Test Steel and Iron.

Nitric acid will produce a black spot on steel—the darker the spot the harder the steel. Iron, on the contrary, remains bright if touched with nitric acid. Good steel in its soft state has a curved fracture and a uniform gray lustre; in its hard state a dull, silvery, uniform white. Cracks, threads, or sparkling particles denote bad quality.

Good steel will not bear a white heat without falling to pieces, and will crumble under the hammer at a bright red heat, while at a middling heat it may be drawn out under the hammer to a fine point.

Engineers' Club of Toronto.

A club building which will be occupied by a number of scientific societies may be built as the result of a project which has developed from the move made recently by the Engineers' Club, 96 King street west, for new quarters.