# CORRESPONDENCE

[This department is a meeting-place for ideas. If you have any suggestions as to new methods or successful methods, let us hear from you. You may not be accustomed to write for publication, but do not hesitate. It is ideas we want. Your suggestion will help another. Ed.]

#### "MODERN HIGH BUILDINGS."

Sir,—My attention has been called to an interesting article, under the above title, in your issue of April 3rd. As it embodies and tends to perpetuate a common misconception as to the origin of the "skeleton construction", I trust you will allow me to correct it in the interest of historical accuracy.

My charming old friend, the late W. L. B. Jenney, of Chicago, lived and died in the belief that he was the author of the construction, which, from having been employed by him in the building of the Home Fire Insurance Company in that city, came commonly to be known as the "Chicago construction." I have heard him tell the circumstances which led his clients to believe that their building investment would prove unprofitable or at least unsatisfactory, if the whole weight of the building and its contents were to be imposed on the walls and these made as thick as that function required. Necessity, the mother of invention, called upon him to provide some device by which the walls could be relieved of some part of their burden, and accordingly attenuated. And this he did by introduction of a "cage" of metal within the outer walls of a metallic framework, which should leave the outer walls nothing but themselves to bear. This was a novelty, although it said that a device essentially similar had already been employed in the interior construction of the Produce Exchange in New York. Another novelty which Mr. Jenney claimed for this building was that it offered the first instance of the employment of structural steel in architectural work. This was by no means extensive or systematic enough to make the building an example of "steel construction," but was confined, if I mistake not, to one or two specimen members, contributed by the Carnegie works as a trophy of the success of the Bessemer process in cheapening the material and an indication that it would soon be commercially available for building.

However, this may be, the Chicago building is not an example of the "skeleton construction" but only of the "cage construction." The skeleton construction was also the offspring of "necessity." April 17th, 1888, Mr. Bradford Lee Gilbert, of New York, filed plans in the building department of that city, for a building at No. 50 Broadway, of eleven storeys, or 129 feet high, on a plot at the Broadway end, of 108 feet by 21 feet 6 inches. If the walls had been made self-supporting in brick-work of the thickness required hy the building law, the front building on Broadway would have been reduced to a mere passageway to the wider building in the rear. Accordingly the architect devised a framework of metal, to carry not only the floors and their loads, as in the "cage" construction, but to supersede the side walls, which became mere panels in metallic frames, according to the system with which everybody is now familiar. The scheme rather horrified the board of examiners to which it was submitted, and it was only after much dubitation and discussion that it was approved, and the building erected with the habitable offices on every floor, which under the system of construction before prevailing would have been impossible.

The unprecedented structure, known from the first as the "Tower Building," was, of course, much more than a nine days' wonder to architects and engineers in New York, and it did not long remain unique. But it still stands as the pioneer, and bears on its narrow front a bronze tablet

with this inscription, which is believed to be unimpeachably accurate, and which seems to tell the whole story:---

"This tablet, placed in 1899 by the Society of Architectural Iron Manufacturers of New York, commemorates the erection during 1888-9 in this, the Tower Building, of the earliest example of the Skeleton Construction in which the entire weight of the walls and floors is borne and transmitted to the foundations by a framework of metallic posts and beams. Originated and designed by Bradford Lee Gilbert, architect, Jackson Architectural Iron Works, contractors for the steel and iron work." Very respectfully

Montgomery Schuyler.

New York, June 2, 1908.

(Signed)

### ADJUSTMENT OF TRANSIT.

Sir,—On examining a new transit I find that the "Line of Collimation" is not in the centre of the telescope field, and that the cross hairs do not seem to be on the object when the telescope is out of focus. Is this fault of any real consequence? Yours truly,

Footes Bay, June 12th, 1908.

N. D. O.

## COOD SHOP PRACTICE.

Sir,—Being interested in the manufacture and use of small boilers, we are desirous of obtaining some information from other manufacturers, users, and interested parties, as to whether it is considered good shop practice to punch the tube holes in the boiler heads. Is the punched hole considered satisfactory in small vertical boilers, up to say 50 horse-power?

Any information on this subject will be gratefully received by Enquirer.

Montreal, June 16th, 1908.

#### ENGINEERING SOCIETIES.

CANADIAN RAILWAY CLUB.—President, L. R. Johnson; Secretary, James Powell, P.O. Box 7, St. Lambert, near Montreal, P.Q.

CANADIAN STREET RAILWAY ASSOCIATION.— President, E. A. Evans, Quebec; secretary, Acton Burrows, 157 Bay Street, Toronto.

CANADIAN INDEPENDENT TELEPHONE ASSO-CIATION.—President, J. F. Demers, M.D., Levis, Que.; secretary, F. Page Wilson, Toronto.

CANADIAN SOCIETY OF CIVIL ENGINEERS.-413 Dorchester Street West, Montreal. President, J. Galbraith; Secretary, Prof. C. H. McLeod. Meetings will be held at Society Rooms each Thursday until May 1st, 1908.

QUEBEC BRANCH OF THE CANADIAN SOCIETY OF CIVIL ENGINEERS.—Chairman, E. A. Hoare; Secretary, P. E. Parent, P.O. Box 115, Quebec. Meetings held twice a month at Room 40, City Hall.

TORONTO BRANCH OF THE CANADIAN SOCIETY OF CIVIL ENGINEERS.—96 King Street West, Toronto. Chairman, C. H. Mitchell; Secretary, T. C. Irving, Jr. Traders Bank Building.

MANITOBA BRANCH OF THE CANADIAN SOCIETY OF CIVIL ENGINEERS.—Chairman, H. N. Ruttan; Secretary, E. Brydone Jack. Meets first and third Friday of each month, October to April, in University of Manitoba.

ENGINEERS' CLUB OF TORONTO.-96 King Street West. President, J. G. Sing; secretary, R. B. Wolsey. Meet-