Kind of Fuel.	No. of Analyses.	Effective B.t.u.	CO_2
Pittsburg bituminous	15	125.3	9.6
Pittsburg bituminous	6	119.9	9.6
Pittsburg bituminous	8	122.5	9.7
Alabama and Pittsburg bituminous	3	112.7	11.3
Alabama bituminous	9	140.9	9.3
Alabama bituminous	12	112.2	7.8
Alabama bituminous (Rock Castle)	13	104.4	11.4
Pocahontas coke	10	103.1	...
Pocahontas coke	8	97.8	7.2
Nut coal	3	100.4	10.5
Coke braize	2	100.5	10.1
Coke braize	4	113.8	...
Coke braize	4	108.0	6.4
Anthracite coal	39	91.2	12.4
Anthracite coal	11	101.2	9.1
Cypress hog	4	111.3	12.2
Cypress hog	12	134.2	10.3
Cypress hog and petroleum	5	135.0	...
Cypress hog and petroleum	5	135.0	..
Pine hog	11	161.4	9.9

To summarize; the advantages to be derived from burning sawmill refuse where it is available are as follows:

First, little ash, therefore little cleaning to be done.

Second, high grade gas, i.e., gas of higher heat value as compared with other fuels in our type producer.

Third, a lesser quantity of tar, and much more limpid in character.

Fourth, gas of constant quality with less labor.

Fifth, no deadly gases to overcome the workmen.

Sixth, and finally, the all-important factor of lower cost per h.p. hour must not be forgotten.

In conclusion, I wish to explain that there is no intention on my part of casting any reflection on the producer or the original installation that we had. I believe that we were among the first to burn bituminous coal in our section, and our work was of such character that the producer plant had to be operated twenty four hours a day and sometimes on Sunday.

Cost of cypress waste fuel (basis 4½ lb. per h.p. hour at 50¢ per ton) equals	0.1125¢ per h.p. hour
Cost of firing 4½ lb.	0.1125¢
Total cost per h.p. hour for cypress waste	0.2250¢
Cost of Pittsburg bituminous coal (basis 1.5 lb. per h.p. hour at $4.10 per ton) equals	0.3075¢ per h.p. hour
Cost of firing 1.5 lb. of Pittsburg bituminous coal	0.0750¢
Total cost per h.p. hour for Pittsburg bituminous coal	0.3825¢
Cost of Alabama bituminous coal (basis 1.5 lb. per h.p. hour at $2.75 per ton) equals	0.2062¢ per h.p. hour
Cost of firing 1.5 lb. of Alabama bituminous coal	0.0750¢
Total cost per h.p. hour for Alabama bituminous coal	0.2812¢

NEW TECHNICAL SCHOOL IN WINNIPEG, MANITOBA.

The St. John Technical High School was recently opened for the admission of pupils. This high school has been established to provide a more complete and comprehensive scheme of scientific and technical education for students and the ordinary school age who are able to continue their education with a view to special preparation before entering the university or commencing a commercial or manufacturing career. Students may by arrangement take a mixed course slightly different from those laid out, with the object of training for definite occupations.

The first year's course consists of such subjects as English, commercial geography, elementary bookkeeping, practical arithmetic, simple algebra and mensuration, geometrical and mechanical drawing, general elementary science, and practical work in the laboratories and workshops.

In the second and third years the subjects are grouped into courses under: Architecture and building; electrical work; machine work; chemical industries, and commercial work. The courses have been carefully arranged by experienced practical teachers, fully acquainted with the requirements of various occupations and knowing well what subjects of study are necessary in the best interests of students who have the desire to achieve success in their chosen occupation.

In connection with the teaching of the mechanical work, the most complete arrangements have been made in the basement of the building. Here, where the noise will not disturb the other classes, are rooms fitted out with the very latest of mechanical appliances and various sorts of machinery from which the intending electrician or mechanic can learn at first hand. In the machine shop, for instance, there are no less than 11 lathes of the very latest pattern all driven by electricity. Besides the large and small lathes there are also to be found a large planing machine, two milling machines, a tool making machine and other fine pieces of machinery all with particular uses.

The cement floor is covered with a wooden flooring so that sharp instruments falling thereon will not be dulled or chipped.

Next to this room is the forge room where the art of the blacksmith and all appertaining to it is taught. The large room is a mass of anvils and blowers and the various instruments that go with the trade. The electrical laboratory is also fitted out with the very latest appliances.

There is a large room for mechanical drawing fitted with monster blackboards running to the full width and length of the walls. Pattern making, wood turning and forging, practical woodwork, all are prepared for in a manner that is excellent. The domestic section where the domestic sciences and arts are taught are equally well equipped. A large power hammer has been installed in the forging and tempering room which will show interesting comparisons between hand and power work. The carpentering department is also most elaborately fitted out and it will need but a few days for the entire system to be running smoothly. At present machinists are fitting up the various machines and getting everything ready.

G. J. Price is in charge of the technical work and H. J. Russell will look after the commercial work. There is ample room in the building for a large number of pupils. A feature is the large lecture hall fitted out with a stage and with a large gallery, accommodating close upon 1,000 all told.