

cut in gores, or radical pieces, from center to circumference, half of the gores being removed and the others brought together, forming a hemispherical cup. These disks are gored under a cutting press, the dies of which are so exact that the gores come together at their edges to make a perfect hemisphere. The formation is also done by a press with hemispherical mold and die, the edges of the gores being covered with glue. Two of these hemispheres are then united by glue and mounted on a wire, the ends of which are the two axes of the finished globe. All this is done while the paper is in a moist state. After drying the rough-paper globe is rasped down to a surface by coarse sand-paper, followed by finer paper, and then receives a coat of paint or enamel that will take a clean, smooth finish. The instructive portion is a map of the world printed in twelve sections, each of lozenge shape, the points extending from pole to pole, exactly as though the peel of an orange was cut from stem to bud in twelve equal divisions. These maps are obtained in Scotland, generally, although there are two or three establishments elsewhere which produce them. The paper of these maps is very thin, but tenacious, and is held to the globe by glue. The operator generally a woman—begins at one pole, pasting with the left hand and laying the sheet with the right, working along one edge to the north or other pole, coaxing the edge of the paper over the curvature of the globe with an ivory spatula, and working down the entire paper to an absolutely smooth surface. As there are no laps to these lozenge sections the edges must absolutely meet, else there would be a mixed-up mess, especially among the islands of some of the great archipelagoes and in the arbitrary political borders of the nations. This is probably the most exact work in globe-making, and yet it appears to be easy, because the operator is so expert in coaxing down the fulnesses and in expanding scanty portions, all the time keeping absolute relation and perfect joining with the other sections and to their edges. The metallic work—the equators, meridians, and stands is hushed by machinery. A coat of transparent varnish over the paper surface completes the work, and thus a globe is built.—*Scientific American*.

### THE LONDON POST OFFICE.

The London postoffice is a great institution. A street divides the two departments, one occupied by the business of letters and papers, the other with telegraphing. In Britain telegraphing is part of the regular post office system. The general post-office building is an imposing edifice of the Ionic order. It is 400 feet long, 130 wide, and 64 feet high. The best time to see the outside rush is just before 6 p. m., at which hour the night mail closes. The rush is something tremendous. Errand boys, hatless clerks, business men, everybody jams forward to get his bundle of letters into the long zinc-edged or copper-faced opening before the hour strikes. Exactly at the minute the office closes, and all letters that are in haste must have an extra stamp on them if they are to go that night. The extra stamp business lasts for an hour. It is a sight to see the stampers at work. The stamper counts the letters, and when he has stamped fifty he hits his stamp on a long sheet of paper at his right hand, and thus the number of letters is estimated. A Stamper in the London office can stamp about 6,000 letters an hour. The telegraph building is smaller and higher than the government postoffice. It is 286 feet by 144 feet, and 84 feet from pavement to cornice. On the first floor are the offices of the postmaster general and the accountant general. On the next floor are the secretaries and staff, and in the two upper stories is the telegraph department. The instrument room is 125 by 80 feet. Fifteen million messages a year pass through it. The building is connected with the district telegraph offices of London by pneumatic tubes, and messages come through literally with the speed of the wind. Four engines in the basement furnish the wind.

### Teachers' Associations.

WELLAND. — Annual Meeting of Welland Teachers' Association. The annual convention of the Teachers' Association for the country of Welland was held in the high school building of that town on Thursday 30th April, and Friday 1st of May. The convention opened in due form under the presidency of Mr. Ball, the public school inspector for the county.

At the business meeting on Thursday afternoon a strange and probably unprecedented change was made in the officers of the association. The offices were all named (!) by ladies. Miss Henderson, of Niagara Falls, was elected president by acclamation, and Miss Brown, of Port Colborne, vice-president; Miss Brackberry is secretary-treasurer, and the Misses Huff, McGulchin, Clark, Wilson and Kerr compose the committee of management. The following programme of exercises other than routine and business, was then followed through.

*Thursday Morning.* — Writing. — Mr. Lorrman, Master of Public School, Port Robinson. Synthetic Method of Teaching Grammar; Mr. McMaster, Master East Side P.S., Thorold.

*Thursday Afternoon.* — Devotional Service. — Conducted by Rev. John Kay, Methodist Minister, Thorold. President's Address. Composition. — J. J. Tilley Esq., Inspector County Model Schools. Calisthenic Exercises, accompanied with singing. — Miss Henderson, Teacher Public Schools, Niagara Falls.

*Evening.* — Music, Singing and Readings. The Relation of Education to the State. — Mr. Tilley.

*Friday.* — Drawing. — G. T. Auley, Esq., (late Pupil of Monsieur Louis Maubant, Paris,) Drawing Master, High School, Welland. Fourth Book Literature. The County Inspector.

*Afternoon.* Should Temperance be Taught in Our Schools? — Rev. C. D. Macdonald, B.A., Pastor Presbyterian Church, Thorold. The Relation of Teacher to his Work. — Mr. Tilley.

About seventy teachers were present at the Convention, and a good deal of interest was manifested in the proceedings.

The Educational Journals were represented at the meeting. The large addition made to the Subscription list of the CANADA SCHOOL JOURNAL, afforded a gratifying proof of appreciation of our efforts to give teachers a first class practical paper.

HALDIMAND. — The Teachers' Convention of the County of Haldimand met in Hagersville on Friday and Saturday last. The attendance was large and the meeting unusually interesting. The programme for the day sessions consisted of papers and discussions bearing directly on school work. The President, Mr. Egbert, read a paper on "Physical Exercise." His paper, as well as the discussion which followed, advocated plenty of good healthy outdoor exercise. He also suggested some extension movements for the school room when the weather would not admit of going outside. Mr. Elliott, of Caledonia, took up the subject of "Mensuration." He threw out some valuable suggestions on this subject in showing how he would teach a lesson to a class beginning the study. He gave a few good rules or formulae for finding the area of triangles, circles, &c. Mr. Hamilton, of Cayuga, read a paper on "Our Profession." This paper was well received, and the writer was requested by the convention to give it to the Newspapers of the County for publication. Mr. Hume, Danville, took up the subject of "Irregular Attendance." He showed a number of reasons why pupils attended irregularly. Parents often keep their children home needlessly. They allow them to remain at home on account of what he termed 9 o'clock head aches. School is often made so unpleasant that boys don't care to come. In connection with this sprung a discussion on how to deal with a truant. The general opinion on this subject was that compulsion by punishment was out of the question. Treat the truant kindly, place confidence in him, and endeavour to make his lessons interesting, and you will win him. Mr. Carruthers dealt ably with the subject of "Promotion Examinations." He suggested some improvements in the time of holding the examinations. Mr. Moses read an interesting paper on "Don't." Each "don't" was a caution against some bad habit which the teacher is liable to fall into. His paper was full of good suggestions.

The Association before closing discussed the subject of "Arbor Day." All felt that the setting apart of this day was a step in the right direction, and were agreed that its proper observance for a few years would have a happy effect in increasing the attractiveness of the school grounds.

At the Public meeting on Friday evening, the audience were disappointed by the non arrival of Dr. McLellan, to deliver his expected lecture on "This Canada of Ours." The Rev. A. Grant was called to the chair, and a good programme of singing, reading and recitations was gone through with very successfully.

NORTH ESSEX. — A local convention of the teachers of North Essex, was held at School No. 7, Sandwich East, near Madistone. Thirty-four teachers were present. Theo. Girardot Esq., I.P.S., occupied the chair. The forenoon was spent in illustrating, with suitable classes, the methods of teaching geography, writing, primary reading, language lessons, literature and composition. In the afternoon a very profitable discussion was held on the several methods, and many practical plans were suggested. Resolutions were adopted approving of only one text-book on each subject taught in the Public Schools, and of the appointment of Directors of Institutes. It was agreed to invite the teachers of South Essex to meet with them next Fall at Windsor, and hold a union convention. Another local convention will be held at Woodalec, June 1st, 1885.