

will be of great service in allowing barges to proceed from the Don to Odessa, which at the present moment is impossible, and it is believed that there will be no difficulty in doing this even at periods when the storms that rage in the Black Sea stop coast navigation. The commencement of the canal took place without any fuss, all festivities being reserved for its completion. No engineering difficulties whatever exist.

— The average tonnage of ships passing through the Suez Canal has increased from 1,000 tons in 1871, to over 1,750 in 1887. Out of 3,137 vessels passing through last year, 2,230 were English, and only 3 American. *The Engineer* well says, "This table also indicates the depth to which the once great merchant navy of the United States has sunk, to find that only three voyages were made in the year by its ships through this great water-way."

— The annual reception of the microscopical section of the Brooklyn Microscopical Society was held June 5.

— At the last meeting of the New York Academy of Sciences, Mr. George F. Kunz exhibited some of the finest red corundum (ruby) from within twenty miles of Atlanta, Ga. This was in pieces weighing one pound, and was part of a mass weighing 350 pounds which was found on the surface. He also exhibited gold quartz from Dutch Guiana (gold formerly found there only in placer deposits had been traced to the vein by a brother of the United States consul, Mr. Thomas Brown), and exhibited specimens said to have assayed \$450 to the ton. The mines are situated four miles from Paramaribo; and the ore is sent to the coast by natives, who carry it on their heads in fifty-pound bags, making two trips a day. He also read a paper entitled 'List of Diamonds found in the United States,' which will be published later on by the society, and stated, that, in addition to the diamond weighing four and a third carats, exhibited by him two months ago, and reported as having been found near Morrow Station, thirteen miles south of Atlanta, Ga., he had recently heard of a two-carat stone which was brought to Mr. L. O. Stevens of Atlanta, Ga., by a colored man, who found it in his garden a few miles from the city, but who would not sell it, or allow it to be sent North. It was imperfect and off-colored. Mr. Kunz also said that five years ago he had identified topaz, for the first time in Maine, at Stoneham; and ever since then he had been on the lookout for the rare gem phenacite, crystals of which he had the pleasure of showing on that evening. This was the first time it had ever been found in the United States outside of Colorado, where it was first discovered in 1882. In Maine a number of superb light-green and sherry-colored topaz crystals were found. They were several inches in length, but of little gem-value.

#### LETTERS TO THE EDITOR.

\* \* \* Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.

Twenty copies of the number containing his communication will be furnished free to any correspondent on request.

The editor will be glad to publish any queries consonant with the character of the journal.

#### An Unusual Auroral Bow.

THE description of the aurora of the night of May 20, by Mr. Kellicott of Buffalo, in *Science* of June 1, is so remarkably similar to the phenomenon as it appeared here, that it seems worthy of mention. Besides "the long streamers emanating from a bright, irregular arch resting on dark clouds," there appeared that extra arch, about the apparent width of a rainbow, with its extremities resting on the eastern and western horizons, and its top passing near the zenith. This arch was first noticed here at 9.30 P.M. standard time, and was very bright at that time, but without color. After 9.35 P.M. it began to grow fainter, but was still faintly visible at 10 P.M. A phenomenon visible here which was not mentioned by Mr. Kellicott was the appearance of a segment of a secondary arch or band attached to the top of the main arch in the north, and at 9.30 P.M. extending down to the horizon a little west of north. Between 9.35 P.M. and 9.40 P.M. the lower end of this segment seemed to detach itself from the earth, and, pulsating like a piece of ribbon held by one hand and waving in the wind, it rose upward, at the same time exhibiting beautiful colors, and at 9.40 to 9.42 P.M. joined the main arch, which assumed the appearance of a bent bow. The

main arch retained this appearance for nearly a half-hour, but slowly assumed the appearance of the normal auroral bow without streamers. The times and appearances given above were taken from notes made at the time of the aurora.

H. HELM CLAYTON.

Blue Hill Observatory, June 5.

#### The People and the Common Schools.

How natural it is for us to try to shift responsibility from our own shoulders upon some other fellow's back! and yet, as Lester Wallack used to say in 'Ours,' "there is nothing so consoling to a man, when he is found out, as the sweet consciousness of — guilt."

The people are at last becoming conscious that there is something wrong in the great public-school system of New York City, — a fact that has been evident to every true educator in the land for the past ten years; and now the people dearly desire to make somebody a scapegoat for their sins. After stoning the scapegoat out of camp and into the wilderness, they would like to again relapse into a complacent contemplation of their own righteousness, soothed by a serene sense of duty well done.

They can safely enjoy "the sweet consciousness of guilt," however. The schools are to-day just what the people, through apathy, indifference, carelessness, and ignorance, have permitted them to become, — one vast machine; a treadmill, teachers treading the wheel, happy innocent children the grist, superintendents for task-masters, and the product a mass of automatons.

Have you not committed the monumental stupidity of placing, through laws enacted by your servants, all responsibility for the management of your schools — not only in monetary matters, but in all educational affairs as well — into the hands of bankers, brokers, lawyers, and physicians, who know no more about the science of education than school-teachers do about finance, law, and medicine, and perhaps not half as much?

To show the utter absurdity of this condition of affairs, it is only necessary to suggest that the Chamber of Commerce, the Stock Exchange, the Bar Association, and the County Medical Society select their governing committees from among the principals of the New York schools. Preposterous, is it? Would it not be safer to intrust affairs of finance to a man who knows, in theory at least, all the laws that govern trade — as a principal must — than to intrust the education of one hundred and fifty thousand children to men who know nothing of the science of pedagogy even in theory?

It is of no use to try to dodge the issue by stating that the Board of Education is guided in educational matters by the city superintendent, an expert teacher. Neither he nor the Board of Education will permit any such construction of the law defining their relative positions. The city superintendent pleads that he is only responsible for the execution of the law as it stands. The Board of Education assumes all responsibility for the inception, enactment, and continuance of all the laws, other than 'State Statutes,' which he executes.

The city superintendent is thus the self-confessed creature of the system he administers, instead of being, as you perhaps supposed, in any degree its creator. If he is not even the author of any portion of the present system, of which he has been the executive head for the past nine years, how can he be expected to become the creator of a nobler plan for the education of your children? You certainly cannot indulge in any such unreasonable expectation.

You, the people of New York City, are directly responsible for the larger part of all the evils that exist in the common-school system. Your children attend them; you hear from them daily reports of the manner in which they are educationally crammed; you see them at home, wearing out their young lives in preparing lessons for the next day's recitations; and, if some wise teacher reduces the tasks assigned for home-study, you immediately begin to inquire why your children have no more books, and why they have so few lessons to learn at home.

I know you do this, for I have heard you talk just that way. In vain have I pleaded with you for the little ones. In vain have I told you that five hours' daily attention to books, to recitations, to instruction, is all that any growing child can safely endure. "No, no!" you cry, "give them more lessons — give them tasks to do at home;" and your children go through their school-lives with the