

position of all places indicated on the maps may be readily found. For American towns the population is given with the index. For the eastern hemisphere a separate population table is given. Throughout the work it has been a fixed aim to render the maps easily legible, and not tiresome to the eye in consultation.

NOTES AND NEWS.

THE committee appointed by the New Jersey Assembly of the Agassiz Association at its semi-annual meeting, held in the chapel of Rutgers College, May 12, to arrange for a seaside assembly during the coming summer, organized itself by the election of Rev. L. H. Lighthipe, Woodbridge, N.J., as chairman, and Prof. P. T. Austen of Rutgers College, New Brunswick, N.J., as secretary. The plan as sketched out by the committee is somewhat as follows. The assembly is to be known as the 'Agassiz Seaside Assembly.' Its membership is to consist of such persons as shall send their names to the secretary before the opening of the assembly, or such as shall be elected members according to by-laws adopted afterward. It is proposed to make it a permanent organization; the membership fee to be one dollar per year, payable at the opening of each annual assembly. Membership badges and tickets will be provided for all who send in their names to the secretary. It is proposed to hold a six-days' session this year, at Asbury Park, N. J., provided suitable accommodations can be secured at that place in the month of August. The subjects to be discussed this year will be principally botany and entomology, under the direction of such practical specialists as can be secured. The work is to include several field-day excursions with experienced guides. Circulars setting forth these facts will be sent to all chapters within a radius of one hundred miles, and to any other chapters which may desire them. Chapters failing to receive them, or any persons desiring copies, can obtain them by addressing the secretary, Prof. P. T. Austen, Rutgers College, New Brunswick, N.J. Members will be entitled to free admission to all lectures and excursions, and will receive circulars before the opening of the assembly, giving full particulars as to time, place, railroad-trains, boarding accommodations, programme of exercises, etc. Membership is not limited to members of the Agassiz Association. It is extremely desirable that names be sent in as soon as possible, that the committee may know how far they may venture in the matter of expenses. All members of the Agassiz Association are cordially invited to co-operate with the committee in making the Seaside Assembly a success.

— According to the *Publishers' Weekly*, a gypsy-lore society has just been formed. The president is Mr. C. G. Leland; the vice-president, Mr. H. T. Crofton; and the members already include the Archduke Joseph of Hungary, Sir Richard Burton, M. Paul Bataillard, Dr. Alexander Paspatis, and several more English and continental students of Romany. The society will publish a quarterly journal, the first part of which will appear on July 1, and copies of which will be strictly confined to members. The honorary secretary is Mr. David MacRitchie, 4 Archibald Place, Edinburgh.

— At a late meeting of the mineralogical branch of the New York Academy of Sciences, Mr. George F. Kunz described some remarkably complicated twin diamonds which have proved to be unusually hard. Some of these will be sent to Professor Rowland of Johns Hopkins University, Baltimore, for use in ruling the diffusion gratings he is making, and using in mapping the spectrum of the sun.

— A new slang dictionary is announced by the *Publishers' Weekly*, which will aim at exceptional completeness by enlisting the co-operation of specialists in different departments. The editors-in-chief are Prof. Albert Barrère of Woolwich, author of 'Argot and Slang,' and Mr. Charles G. Leland (Hans Breitmann); and among the contributors are the Earl of Suffolk, Sir Patrick Colquhoun, Major Arthur Griffiths, Dr. Charles Mackay, Mr. John Hollingshead, Rev. J. W. Horsley, and Prof. Douglas B. W. Saden. The character of the work may be judged from its sub-title: 'A Dictionary of Unconventional Phraseology, embracing English, American, and Colonial Slang; Tinker's, Yiddish, Pidgin, and

Anglo-Indian Slang; Quaint Expressions, Vulgarisms — their Origin, Meaning, and Application.' It will be issued in two volumes, to subscribers only. Applications for the work should be addressed to G. May, care of Messrs. Whittaker & Co., 2 White Hart Street, Paternoster Square, London.

— Professor Langley, secretary of the Smithsonian Institution, has asked for an appropriation of \$27,050 for the expenses of the system of international exchanges between the United States and foreign countries under the direction of the Smithsonian Institution, instead of the \$15,000 previously estimated for. In his letter of explanation he says that there is now an amount of matter (virtually presents to the United States) which could be secured if the institution had the larger sum at its disposal.

— The British Parliamentary Currency Commission will report in favor of the remonetization of silver. It proposes a convention of the leading commercial nations of the world to agree upon a system of weights and coinage under which gold and silver shall be exchanged in international transactions. If such an agreement could be reached, it would probably be a blessing to the world. No one nation can remonetize silver without the co-operation of others, but the whole commercial world can do it.

— The feature of the meeting of the British Royal Society last week was an exhibition by Mr. Henry Burns of a class of nests of live ants. These were so arranged that all the elaborate internal economy of the insects could be fully observed. A cable despatch says that "in one cell was the queen, with servants attending upon her. In another were the aphides, or cows, watchfully herded by their keepers; and a party of workers were engaged in walling up an intruding queen which had been placed in the nest that morning. The state of ant civilization was so remarkably high, that nobody would have been much surprised at a party of scientific ants in spectacles taking notes on the Royal Society."

— The Nicaragua Canal surveying party, under Civil Engineer Menocal, have discovered that a new route, which they call 'the upper one,' is much more favorable for the line of the canal than the one recommended in 1885. By this new route it is said that the total length of the excavation from Ochoa to Greytown will not exceed nineteen miles, and will consist of several short embankments instead of one long one. The cost, it is said, will be greatly reduced, and the engineering difficulties much less.

— A new chemical process of producing aluminium, invented by Professor Curt Netto of Dresden, is thus described: "The ore used is cryolite, a double fluoride of aluminium and sodium, ground to a fine powder, and fluxed with common salt. The ore is then melted in a reverberatory furnace, and when quite liquid is run into a ladle. When in this condition, ingots of solid sodium are forced to the bottom of the ladle, and there held until they become volatilized. The gaseous sodium rising through the molten cryolite displaces a part of the aluminium, which collects in a metallic form at the bottom of the ladle. The greater part of the slag is then skimmed off, and the remainder poured into an iron crucible to cool. When the mass is turned out, a solid ingot of aluminium is found at the bottom."

— An item of interest in connection with the proposed introduction of 'World-English' is going the rounds of the press, crediting President Eliot of Harvard College with having said, "I sat down to dinner one stormy night, in a Swiss inn, with sixteen people. Six different nationalities were represented by these sixteen people, and the only language that they could all speak was English. One may travel now, as I have just travelled, through southern Spain, through northern Africa, through Greece and Constantinople, and back by Vienna, and the more usual routes, with nothing but English. I do not mean to say that you may not occasionally feel the need of some French words, but you can travel comfortably through all these countries with no language but English. That, I am sure, could not have been said twenty-five years ago. The spread of the language within that time for purposes of commerce is most noticeable, as is also the increased knowledge of the language and literature among educated people on the continent of Europe."

—The intention with which *The Universal Review* (London, Swan, Sonnenschein, Lowrey, & Co.; New York, International News Co.) has been founded is twofold,—that of supplying a journal of international character, and of making one interesting to all classes of readers. The services have been obtained of some of the best writers of France, Germany, and America, as well as those of England. Special correspondents have been established in the chief cities of the Continent, America, and the Colonies, who will supply information as to the principal political, social, intellectual, and artistic movements therein. A considerable portion of its space will be devoted to three matters which at present have almost entirely disappeared from review literature,—the arts of painting, fiction, and the drama. On all of these there are promised not only numerous articles, but examples of the best original work which is being done at the present time. Thus *The Review* will publish reproductions of fine pictures and drawings, ancient and modern. It will also differ from its serious contemporaries by including the subject of sport. The pages will be open to duly qualified correspondents, in the belief that there are many men, whose opinions are of value, who will welcome the opportunity of expressing their views on questions of the day in a manner at once less lengthy and less formal than is necessitated by a review article, and in a more permanent form than is afforded by the columns of a newspaper. As to the more serious political, religious, scientific, and scholarly matters, which must form the backbone of any important review, *The Review* will take no partisan view, and will admit opinions of every kind which seem to be founded upon adequate knowledge. — Charles Scribner's Sons have published, in connection with the railway articles appearing in *Scribner's Magazine*, a pretty lithographed folder, entitled 'Twenty Questions and Answers about Railways.' The information contained is interesting, and has been obtained from well-known authorities. It can be obtained by enclosing stamp to the publishers. — Two articles are promised in *The Popular Science Monthly* for July that are worthy of attention. They are an illustrated paper on 'Safety in House-Drainage,' by William E. Hoyt, S.B., in which the belief that plumbing-fixtures in our houses are inevitable sources of danger is controverted, and ways are shown for making them safe; and the concluding essay of the series on 'Darwinism and the Christian Faith.' — D. Appleton & Co. have just gotten out the July number of their *Educational Notes*. This is profusely illustrated, and gives a most tempting summary of several of their newer educational books. — H. Semler's 'Die Tropische Agricultur,' a handbook for the agriculturist and merchant, issued in parts by the Hinstorff'sche Hofbuchhandlung, Wismar, Mecklenburg, has just been completed. The work is of especial importance to those who give their attention to the cultivation of tropical products in the United States, such as oranges, lemons, cotton, maize, tobacco, sugar, etc. The International News Company of New York are the American agents for the work, which is complete in three large volumes. — Messrs. Dodd, Mead, & Co., New York, have issued a new catalogue of rare and choice books, which they offer at discounts in view of the approaching summer season. Among them we note a copy of the first printed edition of 'Euclid,' the first book printed with woodcut diagrams. — C. N. Caspar, Milwaukee, Wis., announces to appear in June, Linderfelt's 'English Volapük Dictionary.' — Messrs. E. & F. N. Spon, New York, have just published 'A System of Easy Lettering,' by J. H. Cromwell. The author divides any surface he may wish to letter into squares (or parallelograms, as the case may be) in pencil-lines; forms the required letters in ink or paint, and according to the style chosen; then erases the pencil-lines, and the lettering is complete.

—Chauncey Smith says the magnitude of the commercial interests which have been called into being by physical discoveries and the development of new ideas, indicates, that if the progress of the past few years is to continue, if new achievements are to rival those of the past, it must be by a higher education and training, not of a few men, but of the many, so that no germ of talent shall miss its opportunity for development and its chance for increasing the powers and resources of man.

—The Canadians themselves are ignorant of most of the vast mineral riches their country contains, and comparatively indifferent

to what they do know, so that the revelations of a recent parliamentary committee report on the great Mackenzie basin are as unexpected there as here, according to the *Engineering and Mining Journal*. Of the minerals of this vast region, little is known. Nothing is known of the minerals which may exist east of the Mackenzie River and north of the Great Slave Lake. Enough is known of the western affluents of the Mackenzie, the committee thinks, to show that at the head waters of the Peace, Liard, and Peel Rivers there are from 150,000 to 200,000 square miles which may be considered auriferous; while west of the Rocky Mountains there is a metalliferous area, principally of gold-yielding rocks, 1,300 miles long and from 400 to 500 miles broad. Gold has been found on the west shore of Hudson Bay, silver on the Upper Liard and Peace Rivers, and copper on the Copper Mine River. Iron, graphite, ochre, brick and pottery clays, mica, gypsum, lime, sandstone, and asphaltum are also known to exist in the region. Salt is found in crystals and in saline springs. The evidence submitted to the committee points, in the language of the report, to the existence, in the Athabasca and Mackenzie valleys, of the most extensive petroleum-field in America, if not in the world. The committee suggests that 40,000 square miles of this territory be for the present reserved from sale, as it is probable that in the near future petroleum will rank among the chief assets of the Dominion. The committee bounds the reserved lands as follows: easterly by a line drawn due north from the foot of the Cascade Rapids on Clearwater River to the south shore of Athabasca Lake; northerly by the said lake-shore and the Quatre Fourche and Peace Rivers; westerly by Peace River and a straight line from Peace River landing to the western extremity of Lesser Slave Lake; and southerly by said lake, and the river discharging it, to Athabasca River and Clearwater River as far up as the source.

—The *American Engineer* states that at the foundry and machine-shop of Albert Russell & Sons, Newburyport, Mass., a locomotive engine is being made unlike any before. It is designed to run on the new 'bicycle railway,' which is the invention of Hon. E. Moody Boynton of West Newbury. The tracks are not both laid on the ground, as commonly. One is laid on the ground, and the other is laid on the under side of a framework which is above and directly over the lower track. The engine and cars have wheels on the bottom, and double trucks above. In this way the whole is steadied on the rail, and cannot fall over nor off the track. It is expected that great speed will be attained on account of the comparative lightness of the train, and also because of the loss of friction. The idea is patented in every country in Europe as well as in the United States and other nations of the western hemisphere.

—For many years past the Old Colony Steamboat Company have maintained, at a large expense, an oil lantern on the summit of the beacon on the southern point of Goat Island, Newport. In very bad weather it has been impossible for the man charged with lighting this lamp to effect a landing at this point, and therefore when the light was most needed it was frequently absent. Upon the summit of the beacon there has been placed a duplex socket carrying a 32-candle power lamp, supplied by the Sawyer-Man Company. This socket is so arranged that but one lamp of the pair burns at a time, the second lamp switching in automatically on the failure of the first. A cable one thousand two hundred feet in length is carried to the mainland. The end of this cable is connected with the distributing point of the torpedo station electric-lighting plant. The whole installation was supplied by the Okonite Company, material and work being subjected to the supervision and inspection of the officer commanding the torpedo station, Commander C. F. Goodrich, United States Navy, the Old Colony Steamboat Company paying all the bills. The beacon was first lighted for experiment on Friday night, June 1. This preliminary test proving satisfactory, the operation of the light was definitely installed on Saturday night. The details of the installation are so complete, and the insulation of wires so high, that failure of the lamp, at least for a long time to come, may be considered as a remote contingency.

—The Hydrographic Office has in preparation a report relative to the storm that caused such great damage off the coast about the

middle of March, commonly known ashore as the 'New York blizzard.' Its terrific violence at sea, however, and the wide area which it covered, make it one of the most notable storms of the century in the North Atlantic. Special efforts are being made to collect all the data possible from vessels north of the 20th parallel and west of the 50th meridian at any time from the 11th to the 15th of March, and the co-operation of masters of vessels and foreign hydrographic offices has been earnestly requested. The data at hand are already very complete for the greater portion of the area in question, but additional information is specially desired from vessels about and to the south-eastward of the Bermudas at any time during the dates mentioned above, and, indeed, from vessels anywhere within the limits already stated.

— The logs from the great raft abandoned off the coast of New England a few months ago have drifted in a direction about east by south, and the greater part of them are now in the region between the 33d and 38th parallels and the 30th and 50th meridians. The reports lately received at the Hydrographic Office would seem to show that the general drift of the logs has been about east by south, and that most of them are now west-south-west from the Azores. Very few, if any, have drifted north of the 40th parallel. A great deal of timber has been reported farther north, to the westward of the 20th meridian, but, from the descriptions given, does not seem to be a part of the great raft.

— Dr. David T. Day of the United States Geological Survey has been requested to make a collection of American pottery for the National Museum. The collection of Sevres pottery presented by the French Government is an exceedingly fine one, as is also that of Japanese ceramics; and the department of Indian pottery is not approached elsewhere in the world. But the museum possesses very little modern American pottery, and it is now proposed to fill up this gap.

— The funeral of Prof. Roland D. Irving, late of the United States Geological Survey, took place at Tarrytown, N.Y., Saturday, June 2. Professor Irving, although only forty-one years of age, had long been connected with the survey, and had done a great amount of very valuable geological work. At the time of his death he was engaged in examining the copper-bearing rocks of the Lake Superior region, in regard to which he had published a monograph in 1883. Another monograph by him, on the 'Penokee-Gogebic Iron-Bearing Series,' has been announced. In collaboration with Mr. C. R. van Hise, he has printed a bulletin on 'Secondary Enlargement of Mineral Fragment in Certain Rocks,' and, with Mr. T. C. Chamberlin, 'Observations on the Junction between the Eastern Sandstone and the Keweenaw Series on Keweenaw Point, Lake Superior.' He had also made many contributions to the scientific journals.

— The third number of the *American Journal of Psychology* (Baltimore, Johns Hopkins University) maintains the high expectations of which the preceding numbers gave promise. There are five original memoirs touching upon several of the fields of this rapidly growing science, and the usual number of book-notices and notes. The first article is by Mr. Julius Nelson, and gives an account of his dreams in a manner that gives food for reflection. He has had the patience to record all his dreams for several years, and, as the manner of recording soon becomes regular and constant, the record can be regarded as a relative index of the amount dreamed. This he regards as the important point rather than the particular content of the dream, and his object is to find with what other physiological function this variation in the dream-quantities keeps pace. He finds it in the changes connected with the sexual function, showing a cycle (in both sexes) of a month, with coinciding maxima and minima of intensity. Mr. E. C. Sanford describes some very careful tests of the relative legibility of the small letters of the alphabet, ascertaining the order of legibility both by the distances at which they can be read and by the times it takes to read them, and deducing from his results some important reforms in the shapes of a few of the letters. As a contribution to animal psychology, Mr. Edwards tells of the habits of a colony of crows in their winter roost near Baltimore. The most astonishing point about these roosts is their size, the most modest estimates counting a quarter of a million crows. With surprising regularity they

return to the roost at sunset in endless streams, and leave again early in the morning. The value of the article is increased by the full account of the literature of the topic. Dr. William Noyes contributes an interesting description of a case of paranoia expressing itself in connection with a marked artistic talent. About these artistic expressions is clustered a system of symbolism of an elaborated type. The article is well illustrated, and the case described in many respects typical. The final article is by Mr. C. F. Hodge, and gives the results of a very promising series of experiments. A group of ganglion cells were electrically stimulated for several hours, and the changes in the cells under a high power of the microscope looked for. A diminution in the size of the nucleus, measured and tabulated, is the most marked change; and the importance of the observation lies in its opening up a new field of research, from which much can be expected. Prominent among the book-notices are those on hypnotism. No less than forty-four titles occur in this review, and, though this enormous activity includes much that will not stand the test of science, it none the less indicates the scope of the subject and the interest it everywhere arouses. The other departments contain notices of articles bearing on the nervous system, on experimental, abnormal, and anthropological psychology, — all of value to specialists in these fields.

— We learn from *Nature* that some months ago a large consignment of salmon ova was despatched from Denmark to Buenos Ayres, *via* Hamburg, for the stocking of certain lakes and rivers in the Argentine Republic. The experiment has proved very successful, the ova arriving in excellent condition, and further consignments are to be made.

— According to *Nature* a marine zoölogical station, on the plan of the one at Naples, is shortly to be established at Ostend. The proposal is supported by four Belgian universities.

— The opening of the Transcaspian Railway to Samarcand recently is an important event in politics and an interesting one in history; but Russian writers have gone a little too far in describing it as a work of great engineering magnitude. On the contrary, with the exception of the bridge over the Oxus, according to *Engineering*, there is not a bit of hard engineering along the whole line. From one end to the other, a distance of over nine hundred miles, it traverses a more or less sandy plain, and possesses fewer engineering features of interest than a thousand other railways elsewhere on the globe. And yet, for all this, while from a technical point of view the Transcaspian Railway is a mere trifle, the undertaking, in regard to its audacious conception and successful accomplishment, must long remain a credit to Russian engineering. Eight years ago any one who would have prophesied that in the present year of grace trains would be running to Samarcand would have been considered fit for Bedlam. Universal ridicule was poured by the Russian press upon General Annenkoff when he first broached his scheme, and the English press was scarcely less complimentary to Mr. Charles Marvin when he published an account of it in his pamphlet, 'The Russian Railway to Herat and India.'

— According to *Engineering*, the Russian Government has already commenced the cutting of the Perekop Canal. This great work is intended to provide communication between the Sea of Azov and Odessa without circumnavigating the Crimea. It will be 111 versts, or 74 miles, long, and take about four and a half years to construct; its completion being timed for the autumn of 1891. When finished it will prove of considerable strategical and commercial importance. By means of it men-of-war will be able to proceed from Odessa or Otchakoff to the Sea of Azov without exposing themselves to capture in passing round the Crimean Peninsula, and a short cut will be provided for the transport of coal from the Azov port of Mariopol to the Black Sea ports of Odessa, Kherson, and Otchakoff. Both during the Crimean and the last Turkish war the Russians felt the need of rapid intercourse between the interior of Russia and the ports of the Black Sea. The new canal will enable them to concentrate their Don, Volga, and Azov resources with great facility at the Odessa extremity of the Czar's dominions, and will naturally render them more powerful in controlling the mouth of the Danube. In time of peace the canal

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