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Solid matter found by Prof. Silliman:

Grains.

In one gallon of Croton water, 10.93
In one gallon of Schuylkill water, 5.50
The most remarkable thing about these results is that notwithstanding the quantity of sand, mud, and other sediment which is suspended in the river water, so much as to injure the pumps, and which must be in great measure deposited and separated from the water in the reservoir, the latter, nevertheless, actually contains more solid matter than the river water itself. This can only be accounted for by the favorable conditions presented in the reservoir foa the growth of minute animals and plants, whose remains add of course to the weight of the solid residue obtained on evaporation. My pupil, Mr. Howland Bill, has at my request submitted the water in the reservoir, and the deposit formed at the bottom, to a microscopic examination, and reports to me that he finds in the water several varieties of animalcules and lichens or minute plants, and that the sediment especially is almost wholly composed of forests of minute plants through which roam herds of such animals as Volvoz that the sediment especially is almost wholly composed of forests of minute plants through which roam herds of such animals as Volvoz globator, or "globejelly," Vibrio anser, or "goose animalcule," and several species of Bacillaria and Navicula. On the surface of the water he found a slight green scum, which when magnified resolved itself into collections of the Cercaria mutabilis, an animal production characteristic of stagnant water. Numerous large green water weeds may also be seen floating in green water weeds may also be seen floating in the reservoir.

Recurring to the results given above, it may also be remarked that the river water is really somewhat less charged with foreign ingredients than that of the springs, although the latter is is so much more pleasant to persons possessing delicate organs of taste. This probably arises from the fact that the principal mineral ingredient in spring water, as shown by the analysis, is chloride of sodium or common salt, while the river water is principally contaminated with carbonates of lime, magnesia, potash, etc., which give water a bitter taste.

The analyses will be found below in a complete former of the state of t

plete form and arranged so as to admit of a comparison between the composition of the river and the springs.

Grains in one gallon of 58,372 grains. 3.534581 3.607750 Whole solid matter found, Carbonate of lime,
Carbonate of magnesia,
Carbonate of potash,
Chloride of sodium,
Chloride of potassium,
Sulphate of lime,
Phosphate of lime,
Silica,
Sesquioxide of iron, with trace 1 300000 Carbonate of lime, .172471 1.021225 .012190 .185847 .142338 .009233 497587 Sesquioxide of iron, with trace of alumina,
In combination (Lime, with the sili-) Magnesia, ca and organ-) Potash, ic matter (Soda, Oxide of manganese, Carbonic acid, Organic matter containing ammonia. .027453 .17351 .55834 monia, .634852 .55532a.
Specific gravity, 1.00071 .99972.
The specific gravity of the Reservoir water was

On comparison of this analysis of the waters of the Delaware with other analyses of river waters, the fact is rendered apparent that few rivers exist whose waters are so free from impurity. All causes of complaint which have arisen are due to the improper mode of storing the water for use. Open reservoirs, in which the water is kept standing for several days to the content of the sun, are perfect hot-1 00064 the water is kept standing for several days to stagnate in the heat of lhe sun, are perfect hotbeds for the growth of animal and vegetable life. Finding every necessary requisite to their germination, light, heat, and an unlimited supply of fertilising mineral substances, phosphates, sulphates, carbonates and silicates of lime, potash, ammonia, etc., infinite numbers of minute seeds spring forth into growing plants, which in their turn furnish nourishment to innumerable swarms of living animals engendered from their embryos pre-existent in the water. The breeding of these microscopic creatures, under favorable circumstances, is so rapid that in a very few hours the water will become alive with them. It was to one of these animals, a species of Cyclops, that the so called "fishy" taste and smell of the reservoir water which has at two or three periods been found so annoying, was due. so annoying, was due.

I have here a simple plan to suggest, which has occurred to me in considering this matter, and which, if adopted, would undoubtedly prevent all difficulty in all future time. It is to floor over the reservoir. Keep the water stored in the dark. Deprive the organic germs of the light and heat of the sun, which constitute their means of life, and they will cease to germinate. The water being kept in a cool, dark place, will always be cool and pleasant. I am Sir, very respectfully HENRY WURTZ. I have here a simple plan to suggest, which

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The Composition of our Hyd, aut Water. The following report was presented to the Directors of the Water Co. on Wednesday:

STATE LABORATORY,

TRENTON, Oct., 30, 1855.

MR. SHERMAN—My Dear Sir:—After many unavoidable delays and interruptions, I have

at last been able to complete the water analyses with which I was charged by you some weeks

with which I was charged by you some weeks ago, and beg leave in the following brief report to lay before you the results.

The water of the Delaware which was submitted to analysis, was collected from the river on the 11th day of September last, at a spot opposite the pump house of the Water Works, and immediately over the grating through which the water is drawn to supply the reservoir. A specimen was also obtained upon the same day, of the water in the reservoir; for the purpose of comparing the proportion of foreign same day, of the water in the reservoir, for the purpose of comparing the proportion of foreign ingredients in the reservoir water, with that in the river water. The spring water analysed was obtained some days later, from one of the tanks from which the city was formerly supplied, in the rear of the residence of Mr. Closson.

The proportion of solid matter found in the several waters was as follows:

VSOTS Grains In one gallon of Delaware water, 3.5346 In one gallon of the reservoir water, 3.8555 In one gallon of the spring water, 8.6077
For convenience of comparison, I will here quote the results of Professor B. Silliman, Jr., obtained some years ago with the Croton and Schuylkill waters.*

The Contract for the New Grand Reservoir.

OPENING OF THE BIDS AT THE ENGINEER'S OFFICE

-MESSES. FAIRCHILD, COLEMAN, WALEER & BROWN,
THE PROBABLE SUCCESSFUL BIDDERS.

THE PROBABLE SUCCESSFUL BIDDERS.

The proposals for building the new Grand Reservoir were opened yesterday noon, at the office of the Engineer of the Croton Board, in the presence of a large number of contractors.

The following are the specifications for the work to be done. The letters in parenthesis indicate the column in the subjoined table, in which the estimate is given for that portion of the work:—

portion of the work:—

(E.) For all excavation, whether hardpan, quicksand, stones, boulders or otherwise, excepting solid rock which requires blasting, and excepting boulders more than half a cubic yard in capacity, and for disposing the materials ac cording to the specifications in spoil bank, or in refilling excavations made to obtain materials, or embankment, or puddle bank, or puddle), to be measured in excavation, estimate in cents per cubic yard.

(F.) For all excavations of solid rock which requires blasting, and of boulders of a capacity of more than half a cubic yard, and disposing the materials according to the specifications to be measured in excavation, estimate in cents per cubic yard.

(G.) For puddle bank, and all pudding required, including the second of the control of the

circles from the rock excavation of solid rock which requires blasting, and of boulders of a capacity of more than half a cubic yard, and disposing the materials according to the specifications to be measured in excavation, estimate in cenus per cubic yard.

(G.) For puddle bank, and all pudding required, including filling seams in the rock, when required, in addition to the price paid for excavation of the materials under item for the price paid for excavation of the materials under item for the materials under item for the materials under item for the content of the price paid for excavation in them for of all puddies and all masonry and brot en stone on the slopes, in addition to the price paid for excavation in them for for furnishing materials in item N, when the esgineer may direct materials in item N, when the esgineer may direct materials in tem N, when the esgineer may direct materials to be furnished from outside the Reservoir ground to be measured in embankment, estimate in cents per cubic yard.

(I.) For the lining of broken stone on the inner slopes of the embankments, and placing the same as directed, and for all labor connected therewith, to be measured in embankment, estimate in cents per cubic yard.

(K.) For paving or constructing slope wall, the stone to be taken from the rock excavated, after supplying the croon Aqueduct bepartment with whatever they may require according to the specification and for labor is constructing the same, to be measured in the wall, estimate in cents per cubic yard.

(K.) For stone to be furnished for the paving in case the stone for the excavations hould not be deemed suitable for paving by the engineer, in addition to the price above stated in item K, to be measured in inhe wall, estimate in cents per cubic yard.

(M.) For sliclay, earth, sand and gravel to be furnished for puddle, should the engineer deem the material from the excavations not suitable for that purpose, or should the evaluation of the price paid for ombank, by the engineer, in addition to the pri

The following is the table of bids. At the head of each column is given the amount of each kind of work to be done, as per specifications; and in the columns are the estimates in cents. The last four bids were ruled out as informal, in consequence of irregularity in the sureties, or where only one of the contracting parties took the required oath. The Comptreller objected to these latter, for, taid he, "who knows but the party who does not make oath that no public official is interested in the contract has made an arrangement with the Comptroller?" No less than three bids were received by letter, and, of course, were entirely irregular. They did not come up to the specifications, and were not scaled. One genius sent a teregraphic despatch from Montreal, offering to do the work for \$86,000. It only created a laugh. Messrs. Fairchild, Coleman, Walker and Brown are supposed to be the successful parties; but the award will be finally made today, when the question on the informal bids will be determined. The following is the table: formal, in consequence of irregularity in the sureties, or

ay, when the question on the informal bids will be determined. The following is the table:

The Kensington Water.—It has been discovered that a great nuisance exists at the whati next shows the Kensington Water Works on the Delaware river, which has largely contributed to the filthy and unwholesome condition of the water. The nuisance consisted of a large deposit of the offset of catifsh, which at low tide on Wadnesday was found to be from nine inches to three feet deep, emitting a most offensive and sickly small. Measures were immediately taken by Mr. Ogden, Chief Englacer of the Water Department, to have the nuisance removed immediately. The whanf and dock belongs to the Lehigh Navigation Company, who, upon notice by the Beard of Health, presmilly tools measures to remove the levil and to preven the recurrence. This deposit of the hand construction of the numerous cat fishers who for years have congregated at this spot to prepare their fish for market. The company will forbid the use of the dock to the fishermen for the fature, and thus avoid the cause of a nuisance in a locality which, of all others, ought to be free therefrom. A proper degree of attention to our docks on the Delaware and the Schuylkill rivers, would, no doubt result in removing many nuisances that now exist, and contribute to a more cleanly and wholesome supply of water to our clitzens.