

CHOLERA AND TRADE.

We have one formidable and unusual enemy to trade approaching, which may neutralize all the good we might otherwise hope for—that is the cholera.

At present confined to the south of France and limited in its effects, as not much increasing the ordinary bills of mortality, it has already exercised a baleful influence over the shipping trade, which needed no further obstacles to render it unprofitable, but which will now have to run the gauntlet of the quarantine laws and all the delays and costs which they involve. Already the Mediterranean ports are closing against all ships from the East, and if, as it is most likely, the epidemic spreads northward, the Channel ports will also require to be carefully watched, and no doubt a very rigid examination of all vessels arriving from the Mediterranean and a long quarantine in suspicious cases will be the result.

The sole chance left to our mercantile steam fleet lies in its celerity and quickness of despatch. Their voyages are counted by hours, and their navigators are impatient of the smallest delay, even in loading or discharging, lest the small profit of the voyage should be swallowed up by the expenses of keeping the officers and crew. Imagine a steamship making for her port at the rate of 300 or 400 miles a day, the captain counting to deliver his cargo at the rate of 500 tons per diem, being brought up short by a quarantine boat, and ordered into some lazaretto apart, to fly the yellow flag for ten days or a fortnight before *pratique* is allowed him! Regarding the present rate at which the business of the world is driven along, it would seem like a paralysis of the system and a total reversal of the habits of trade. Steamers would cease to be of their usual account in shipping, and better freights than can now be obtained would not induce them to charter in the face of this new and unexpected impediment.

As a social visitation it is not for us to consider what disastrous consequence may result from this pest, having at such a season of the year obtained a footing in Europe. It seems to have been boldly met by science, and collared at the seaside, though many of the inhabitants of Toulon fled for their lives on its first announcement, thinking, with Falstaff, that discretion was the better part of valour. The disease is better understood now than it was when it came among us in 1849, and every precaution will no doubt be taken to limit the area of its ravages. But after all it is common in India, in the chief cities and stations of the presidencies—at Calcutta, for instance, where Europeans go and live out long lives in the midst of it; so that panic seems unreasonable, even should it reach London.

It is remarkable how suddenly it terminated on its great visitation aforesaid. As the summer waned the daily rate of mortality increased, till in the early part of September 400 deaths per diem were announced. The weather cooled, and the next week the number diminished by more than half, and in another week or two it was almost forgotten. People treated it as a conquered enemy, and went about their affairs without the smallest dread of it; nor did it reappear except in a few isolated cases of poverty, with the total absence of all sanitary adaptations.

But whether the cholera is limited to the ports of the south of France or not, there is no doubt but it will very seriously affect the steam shipping trade of Great Britain with the Mediterranean ports.—*Timber Trades Journal*.

VARIATION IN THE LEAVES OF TREES.

The number of our ornamental trees is largely increased by the fact that individual trees sometimes vary from the usual or normal form of the species. This variation occurs in the branches, which may be pendulous, and produce "weeping trees," or erect and fan-like. The leaves vary greatly, both in their form and colors, and the flowers and fruit may strikingly depart from those proper to the species. The weeping beech, the fern-leaved and purple beeches, are three strong and valuable ornamental trees, produced by as many different kinds of variation, affecting the branches, and the

form and color of the leaves. Some variations are produced from the seed, the young seedling trees showing their peculiarities from the start. Variations of this kind are to some extent continued by seed. When the seeds of the purple beech are sown, the nurserymen expect that a large percentage of the seedlings will have purple foliage. Variations are produced in another manner. A branch appears upon a tree of the normal kind, having a different habit of growth, or bearing leaves, flowers, etc., quite unlike those upon the rest of the tree. The term "sport" was long ago applied to variations occurring in this manner; Darwin called them "bud varieties." Such forms are propagated by cuttings, layering, grafting, etc. They often differ from the usual form of the tree in the readiness with which they can be propagated, and sometimes as to their hardiness. The variations in the form of the leaves often give to the tree a very different expression from that peculiar to the species, and the foliage, instead of being dense and massive, is light and feathery. Deciduous trees with simple leaves, may be divided into two groups; one with feather-veined, and the other with radiate-veined leaves. In the first, like the beech, the apple and many others, a strong mid-rib runs lengthwise of the leaf, from its base to its tip, and smaller ribs or veins run from the mid-rib to the margin of the leaf, somewhat like the plume upon a feather. In the other group, the radiate-veined, three, five, or more equally strong ribs, start from the base of the leaf, and diverge towards the circumference, as in the maples, the buttonwood tree, etc. Such leaves are also called palmately veined. We may look upon a leaf as a framework of ribs or veins; these are woody and firm, and give strength to the leaf. The spaces between these are filled with a soft, green, pulpy material, in which the work of the leaf is carried on. In the leaves of the normal form, there is a great difference as to the completeness with which the margin is filled out. Sometimes there is a break in the margin, not even the slight notches so common; such leaves are called entire. The margins of other leaves are variously indented, and this varies from fine notches, to depressions half way or more to the mid-rib, producing that great variety in outline so noticeable in leaves. These forms of leaves are characteristic of species. Leaves ordinarily entire, or with slight indentations on the margin, may vary by having unusually deep divisions; such leaves are popularly known as cut-leaved. The feather-veined leaves have the divisions run from the margin towards the mid-rib, and when these are deep the leaves are often called "fern-leaved." The unusual indentation or cutting of the margin of radiately-veined leaves, produces a very different set of forms. The native silver maple (*Acer dasycarpum*), is one of our most valued trees for shade or for fuel. Among the many thousands of seedlings that have been raised, a number have shown marked variations in their leaves, and several have been multiplied in the nurseries.—*American Agriculturist*.

LAUNCH OF A GREAT SHIP.

The Cunard Line steamer Umbria, the largest vessel afloat except the Great Eastern and City of Rome, was launched June 25 from the yard of Messrs. John Elder & Co., Fairfield, Govan, for the Cunard Company. She measures 8,000 tons gross, her length is 520 feet, her breadth 57 feet, and her depth 40 feet. Her engines are designed to indicate 12,500 horse power, the most powerful marine engines yet constructed. She was named the Umbria by the Hon. Mrs. Hope. She is built entirely of steel, is divided into ten water tight compartments, and has five decks. The promenade deck extends for 300 feet over the whole breadth of the vessel, and the saloons will all be proportionately large. It was matter of remark among the company present at the launch that it is less than ten months since the keel of the vessel was laid. The new ship will run between New York and Liverpool.

UNKNOWN TO SCIENCE.—That preparation is undiscovered which can surpass Dr. Fowler's Extract of Wild Strawberry as a cure for cholera morbus, dysentery and summer complaints.

TO CURE THE TOBACCO HABIT.

A correspondent of the Philadelphia Record says:—

"Your answer to E. B. regarding the tobacco habit is partially incorrect and very discouraging to those wishing to abandon an injurious habit. You are quite right in saying that the only cure is to 'quit'; but my personal experience teaches there is other aid than 'will power' in doing so. I tried tapering off till a 6-cent piece would last me six weeks, but was as far from quitting as ever, I saw that the habit had occasioned an unnatural secretion of saliva, which overcharged the glands and created the nervousness unless something was in the mouth to stimulate them to the action necessary to its discharge. A remedy was needed that would occasion this discharge and act upon the glands so as to reduce the secretion of saliva to a natural quantity. The following preparation answered the purpose admirably: Four ounces of pulverized slippery elm bark, two drams of tannic acid mixed to a stiff paste with gum arabic water and kiln-dried to a hard cake in oven; to be used whenever a desire for tobacco is felt by putting a small bit in the mouth and allowing it to gradually dissolve. It should be used as long as any desire is felt, for some substance in the mouth. Its continued use in sufficient quantities would be a sure cure in many cases of chronic diarrhoea.

Hoping you will use this not only for the benefit of E. B., but of many others who wish to discontinue the use of the magic weed, I remain.

THE ELECTRO-MOTOR.

It may certainly be said that for pumping, sawing, and such like operations of a large country house, an electro-motor, actuated by the dynamo which lit the house at night, would be cheaper and quite as effective as a steam engine. Sir William Armstrong, at his house near Newcastle, has utilized a water-fall in his grounds to light his house by night and to supply it with power by day. The waterfall is 1,500 yards from the house. It actuates a turbine, which it connects by a belt to a dynamo electric converter, capable of transmitting about 10 horse-power into a current of electricity. The current is conveyed by a suitable conductor to the house where it works forty Swan lamps. In daylight it works a saw mill. Sir William Siemens, at his country seat near Tunbridge Wells, uses a steam engine, the waste steam of which warms the hot-houses. During the night the primary machines actuate two powerful electric lights, which are employed in forcing the growth of various fruits and plants which live, as it were, in perpetual sunlight—or its equivalent. During daylight one of the machines is used to work a chaff-cutter and the other machine is at the farm a quarter of a mile away; the other does the pumping of the establishment. At night, of course, they are employed for light.—*Nineteenth Century*.

A Large Dam.

A French engineer in Brazil has lately been selected to construct what will probably be, when completed the largest dam in the world. The dam will be 940 feet long by 58 feet high, and two smaller ones will close side depressions. This work will, it is calculated, back the water over 1,500 acres, and retain 14,000,000 cubic meters of water, sufficient to provide for all the cattle of the regions during three years, and for the irrigation of 5,000 acres of flat bottom land alongside the river bed below. The rivers of Ceara flow in the wet season alone.

English Wheat Growing Useless.

As a bushel of wheat can be brought England from any North American shipping port for fourpence (which is double the freight it was in April), or about fifteen pounds weight for a penny, wheat-growing in England may be expected gradually to die out, as useless and unprofitable.—*Timber Trades Journal*.

GREAT NEGLIGENCE.—There is great neglect with most people to maintain a regular action of the bowels, which causes much disease. Burdock Blood Purifiers cure constipation.

DOWN IN DIXIE.—The wife of Mr. J. Kennedy, dealer in drugs in Dixie, was cured of a chronic cough by Haggard's Pectoral Balm. The best throat and lung healer known.

Timber Limits and Mills FOR SALE.

Comprising about 300 miles of timber limits, in the counties of Joliette and Montcalm, in the Province of Quebec, bearing Spruce Pine, and Cedar, traversed by the La Marquette, Dufréne, and other rivers.

About 25 acres of land at Valcartier, on the La Warren river, 40 miles from Montreal, with fine water power, saw-mill, store, dwelling and outbuildings.

About 100 acres of land at Charlemagne, at the mouth of L'Assomption River, 17 miles from Montreal, with a steam saw mill of large capacity, manager's house, dwellings for employees, machine shop, bakery, store, wharves, etc., ample facilities for loading vessels. A very complete establishment.

Rooms and dams on the various rivers. The whole in running order offers a capital opportunity for doing a profitable business, and will be sold on favorable terms at a low price.

Apply to the LIQUIDATORS of the EXCHANGE BANK 6210 Montreal, Canada.

LUMBER DRYING APPARATUS

A Hawkins' Patent DUPLEX HEATER

Containing 2000 feet of 1-inch and 2000 feet of 1½-inch Wrought Iron Pipe, with casing and conducting pipes and a 60-in. STURTEVANT BLOWER, all in complete working order. Can be used either with exhaust or live steam, or both.

This is the latest and most complete method of drying lumber, and will be sold low.—Apply to

T. McAVITY & SONS, 12, King Street, ST. JOHN, N.B.



MILITIA.

SEALED TENDERS, marked on the left hand corner of envelope "Tenders for Militia Clothing and General Store Supplies," and addressed to the Honorable the Minister of Militia and Defence, will be received up till noon of Monday, 11th August, 1884.

Printed forms of tenders, containing full particulars, may be obtained from the Department at Ottawa and at the following Militia Stores, where also sealed patterns of all articles may be seen, viz:—The offices of the Superintendent of Stores at London, Toronto, Kingston, Montreal, Quebec, and St. John, N. B.

Tenders not in relation with sealed patterns of the Department or accompanied by special patterns will not be received.

No tender will be received unless made on printed forms furnished by the Department.

The material of all articles will require to be of Canadian manufacture and Canadian workmanship.

Each tender must be accompanied by an accepted Canadian bank cheque, for an amount equal to ten per cent. of the total value of the articles tendered for, which will be forfeited if the party making the tender declines to sign the contract when called upon to do so, or if he fails to complete the service contracted for. If the tender be not accepted the cheque will be returned.

The Department will not be bound to accept the lowest or any tender.

C. EUG. PANET,
Deputy of the Minister of Militia and Defence
Ottawa 4th July, 1884.

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