

ture of four interval and alluvial soils, and if they were to reduce, for the present, the cultivation of wheat, as a speculative cash article.

**Flour.**—This primary article, the produce of our state, suffers by two essential causes, the mode of collecting promiscuously the grain for the New-York manufacturing mills, and the additional and unnecessary expense of a river navigation, with other charges, amounting to more than the fourth of a freight for Europe, and the half of a freight for the West India markets. If the northern landings could be made as good flour markets as New-York, and if the wheat was carefully selected or attentively manufactured for the account of the farmers, as it is done in Pennsylvania and in the southern states, whose flour is far superior to ours, the north river flour would soon gain a better character, and, with our lumber and other articles, constitute sufficient freights for exportation, besides saving for the farmers, the common flour and offals, which would answer very good purposes, for their domestic economy, inasmuch as the superfine alone, would bring them as much as the whole of their grain does, at all times.

**Indian meal.**—This article is in great demand in the West Indies, when kilndried.

**Rye meal.**—Always in demand in New England, and alone would pay for all the fish imported from those states.

**Oats.**—One of the best articles in the West India market.

**Beer.**—The Albany ale had once a great and high character in the West Indies and in the southern states. Malpractices have injured it, but the exertions of the present brewers will re-establish its former fame.

**Cider and perry.**—Would always command a good price in the southern markets if those articles were manufactured and barrelled with care, and the freightage reduced.

**Lumber.**—No article would more largely contribute than this, to the promotion of our interior ship navigation. As it is of a bulky nature, and yields but small profits to the producers, the river and intermediary charges absorb nearly the whole, and prevent its exportation; but if those charges were removed, our lumber could be as profitably exported from Albany, as it is now from Quebec.

**Tannin.**—Essence of the bark of oak or hemlock, which accelerates amazingly the operation of tanning, and is now preferred generally in Europe to the old method of tanning in vats with the bark itself, and would find an excellent market there.

**Quercitron.**—Ground bark of the yellow oak; it is in great demand in Europe, and is largely exported from Canada for England.

**Sunack.**—That bush abounding in many places, supplies with its flowers the art of dyeing, with a valuable ingredient, and with its slender limbs and leaves, the art of tanning with the best stuff for tanning morocco. It is always in demand in Europe.

**Cherry, curled and birds eye maple, black walnut and black birch.**—The boards made from the timber of those valuable inhabitants of our antique forests, have hitherto been brought very expensively and in small quantities, to the northern landings, by wagons or sleds. By the operation of the improvement of interior and river navigation, they would become very soon successful rivals of the mahogany in all the foreign markets, the variety of their shades and fibres, striking agreeably the fancy.

**Gypsum.**—The Onondaga plaster has been tried and preferred on the seaboard to the Nova Scotia and European plaster, and would become an immense article for our coasting trade.

**Marble.**—The Cherry Valley and Vermont marble is equal to the handsomest marble of Egypt and Italy, and would soon find a market in Europe and in the West-Indies, if it was sawed and prepared for commerce, either by stone saw mills or by the culpris of the state prison.

**Slate.**—That valuable article lately explored in this state, will become very important as soon as the upper stratas are worked down.

**Water proof lime.**—An article of immense value, lately discovered in Cayuga, Onondaga, Madison, Ontario and Genesee counties, and will soon supply an immense tonnage; it may be exported in one bottom.

**Bricks.**—In great demand constantly in the West Indies, as well as marble: they sell from 15 to 20 dollars, and are imported in great quantities by the Dutch and Danes. The frequency of the hurricanes, have rendered brick and stone buildings preferable, in every respect, to frame houses, two often prostrated by those tornadoes.

**Washington mill stones.**—Equal in many respects to the French burrs, where put up like them, and superior as bed stones.

**Fresh provisions.**—Advantageously exported from Connecticut and all the eastern states, to the southward and West Indies.

**Live stock, horses, mules.**—Constant, with fresh provision articles and some lumber, the staple of the Connecticut river maritime trade, and would soon become, for our farmers, a new source of wealth, if the enormous charges of the river navigation and deposit or stay in New-York, were removed.

**Pressed hay.**—An article always in demand to the southward, and which, by the report of several West India merchants, could also find a good market there: the land which produces sugar, coffee, tobacco, indigo, and other valuable articles, not being suffered to be long occupied by the spontaneous growth of grass.

**Ore.**—The American iron ore is equal, if not superior to the Swedes and Russia metals, and would not only become an immense article for home consumption, but also for exportation if properly attended. The iron ore, unwrought, has frequently been a profitable ballast for the English ports, and I have seen it stored for that purpose in New-York.

**Salt.**—Nothing is wanted, to secure to the New-York salt an immense exportation, for domestic or foreign ports, but a cheaper navigation and moderate charges.

I could enumerate many other articles, too well known to be mentioned, and I shall only repeat, that the reduction of freight, occasioned by a direct ship navigation in one bottom, on all those articles, will equal at least one fourth of the freightage of the same to Europe, and one half to the West Indies, and that of course our northern commerce could be benefited of that difference, besides the large profits which the existing order of things in New-York, charges on the hard earned produce of our industry, to its great damage abroad.

#### Schedule E.

Exhibits the cost of a great lateral canal for ship navigation, 12 miles, 755-1000, or 22,448 8-10 yards in length, on the proportion mentioned in the report, amounting to \$727,715 08, including 10 per cent for contingencies, and the expense of a steam engine. It must, however, be observed, that the excavation will be cheaper than it has been estimated, in as much as the depth of digging, instead of being 20 9-10 feet, has been reduced to 16 785-1000.

Schedule F.  
Is an extract of a law of the province of Canada, regulating the intercourse with the United States of America, passed in the session of 1819—granting the privilege of being freely imported without payment of any duty whatsoever to all sorts of timber, lumber, raw and unmanufactured articles, grain, flour, meal, and farming produce of all kinds, from the United States, imported by land or by water.

#### Schedule G.

List of the principal ports located at the head of ship navigation on rivers, in the several parts of the world.

#### ASIA.

Canton, the great emporium of China, stands 80 miles distant from the sea, on the eastern bank of the river Peking, which flows from the interior of the empire, in a stream of 300 miles, collecting in its course numerous canals, the main highways of that singular country.

Calcutta, the principal port of the British dominions in the East Indies, stands 100 miles from the sea, on the western branch of the river Ganges.

#### EUROPE.

London, situated at the head of the ship navigation of the Thames, stands 100 miles distant from the sea, and above several flourishing ports.

Rouen, in France, stands at the head of the ship navigation of the river Seine, 90 miles above the Havre, one of the greatest merchant sea ports, and both are below the great city of Paris. Nantes, 40 miles above Paimbeuf, on the Loire.

St. Petersburg, in Russia, on the Nieva, 40 miles above Cronstadt, &c. &c.

#### NORTH AMERICA.

Montreal, 320 miles distant from the sea on the St. Lawrence, and 170 above Quebec.

Alexandria, one hundred miles from the sea, on the Poimac.

Philadelphia, 49 miles above the bay on the Delaware.

New Orleans, 102 miles above the bar, at the mouth of the Mississippi, &c.

#### Schedule H.

Exhibits the cost of a small lateral canal for sloops and steam boats, 6 8-16 miles, or 11,968 yards in length, 30 feet broad at the bottom, 72 at the surface of water, and 14 2-10 feet deep at common high water mark, provided with basins, a gravelled towing path, embankments on each side, 2 feet above the highest spring freshets, and a safety gate at each end—Amounting in the whole, including 10 per cent contingencies, and a steam engine, to \$75,106 36—The said canal extending no further than Castleton.

#### SCHEDULES,

Accompanying the Report of the Board of Commissioners appointed to devise a plan for improving the Navigation of Hudson's River.

#### Schedule A.

Contains a table shewing the elevation of the tides, as they have been stated in the report.

#### Schedule B.

We the undersigned do certify, that we now are, and for several years past have been, well acquainted with the navigation of the river Hudson; and that previous to the erection of the dam at Winne's bar, the channel way, opposite the upper end of Beekman's or Schodack creek, was wide, and extended almost to the east shore; that there then existed no bar or shoal at that point. And we do further certify, that since the erection of said dam, a shoal has been gradually increasing at the aforesaid point, and that the channel way there has now become quite narrow and difficult of navigation.

Witness our signatures, this 22d day of Feb 1820.

Saml Wiwall,  
Daniel Peck,  
Isaac Newton,  
Isaac Keeler,  
Jeremiah Austin,  
Jasper S. Keeler,  
James N. Cobb,  
George Monteath,  
Henry Green,  
Austin Matson,  
Roorback,  
Thos. S. Donnelly,  
Daniel Attwood,  
Barnum Whipple.

The subscriber would observe, in confirmation of the fact stated by the captains of steam boats and sloops who have signed the above certificate, that the deep water in front of Castleton, although embodied in a descending mass of from 16 to 23 feet in depth, at common high water, and confined on the east by the shore, and on the west by an extensive sand bar, bare at low water, to a breadth of only 48 rods, has not sufficient momentum to dislodge the shoal formed in the midst of the channel; but on the contrary has, at that very spot, deposited a bed of sand 8 feet in depth, forming now the Castleton shoal; and what is more to be noticed, immediately beyond the contraction above mentioned, the river increases in breadth and the water in depth.

#### JOHN RANDEL, Jun.

The subscriber certifies, that since the building of dams above Albany, islands and shoals have been formed below; and that to his perfect recollection, he hath fished in deep water where the island above Bath, and below the first dam, is now seated; and that since the erection of the dam, in general the fisheries have been very materially damaged.

#### JAMES WYNKOOP.

Albany, February 28, 1820.

#### Schedule C.

Contains an estimate of the expense of improving the navigation of the Hudson river, on the plan of Mr. Goulbourn, by means of alternate piers, 2000 feet apart, and raised to the level of common high water; and also by submarine excavations, the produce of which is deposited behind the piers. The amount of expense on that plan, from Troy to Coeymans overislaugh, would be \$2,076,105 89.

#### Schedule D.

List of articles, which a ship navigation from the head of the tidal waters of the Hudson, would materially benefit.

**Ship timber, masts, spars.**—Great and important articles, the main staple of the commerce of the Baltic, which the devastations of the wars of the French revolution, have rendered extremely scarce. The British have, of late years, exported an immense quantity of these articles, from the United States, through Canada. When the northern canal is completed, the same articles will be transported cheaper to the tidal waters of the Hudson. But the rafting to New-York is difficult for oak timber, and many rafts taken there, have fallen a prey to heavy local charges, besides the destructive operation of the salt water worms. An avenue as near as possible to the head of the navigation being opened for the store ships, which the continental maritime powers of Europe, keep on purpose to import their naval supplies, and for sloops built for the same purpose here, would vastly encourage that useful commerce, and give value to articles now rotting in our woods or converted to fuel.

**Pitch, tar and resin.**—Large articles of export from the northern states of Europe, and confined in America to the southern states; though nature has supplied the northern region with a greater abundance of the evergreens, from which those valuable substances are extracted.

**Hemp.**—The high price of that article in Europe, which Russia is unable to supply in proportion to the wants of the maritime powers, would richly reward the labor of our farmers, if they were to turn their attention to the growth of that valuable article, so congenial to the na-