

FORTY ETCHINGS,

FROM SKETCHES MADE WITH THE

CAMERA LUCIDA,

IN NORTH AMERICA,

IN 1827 AND 1828.

BY CAPTAIN BASIL HALL, R.N.

CADELL & CO., EDINBURGH ; SIMPKIN & MARSHALL, AND MOON, BOYS & GRAVES, LONDON.

1829.

MEMORANDUM.

THE following Etchings have been selected from a series of Sketches made with the Camera Lucida in America, during the years 1827 and 1828, and the utmost pains have been taken to adhere to the original drawings. No reduction, enlargement, or embellishment, has been allowed in any instance; but the very lines traced on the spot, have been transferred to the Plates, in order to preserve, as far as possible, the character of truth which the mechanical accuracy of the Camera Lucida communicates to its work, even in hands but little familiar with the management of the pencil.

This valuable instrument ought, perhaps, to be more generally used by travellers than it now is; for it enables a person of ordinary diligence to make correct outlines of many foreign scenes, to which he might not have leisure, or adequate skill, to do justice in the common way.

It should be recollected that in most cases, it is not striking or beautiful views that we require, but merely correct representations, as far as form is concerned, of those familiar objects which strike the eye of a traveller every where in his path as characteristic of the country he is visiting.

If his sketches be further relieved by lights and shades, another step is made towards the attainment of this purpose; for even a very few such touches, if strictly true to nature, often serve to place new scenes more distinctly before us than the most elaborate, or the most graphic verbal description can ever hope to accomplish.

This instrument brings both these requisites within our reach; for although it be generally used for outlines alone, there seems no reason why the shading should not be as correctly delineated as the bounding lines of the trees, houses, water, or even the living figures, which are brought within the field of view.

Artists accustomed to draw in the ordinary way, are sometimes teased with the rigid accuracy and the confined limits to which the Camera Lucida subjects them; while persons altogether ignorant of the subject, are disappointed to find, that for the first day or two they advance but little. Both parties complain, and not without some reason, that they cannot see the pencil distinctly,—or that they lose sight of the object they are drawing, just when they wish most to see it,—and also, that the apparent motion in the image caused by the slightest change of position in the eye, perpetually throws them out. But they may rest assured, that a little perseverance will put all these difficulties to flight, after which, the wonderful economy of time and trouble will far more than overpay the short labour of instruction. It adds greatly to the advantageous and agreeable use of the Camera, to have a portable table as part of the apparatus. For this purpose, Mr Dollond, instrument-maker in St Paul's Church Yard, London, has recently devised a small brass frame which folds up when not in use, so compactly as to stow away within the legs of a stand not larger than a walking-stick. This, together with a camp stool of the same slight description, renders the draughtsman quite independent of further assistance, especially if his instrument be furnished with the double movements, and other contrivances recently adopted by Mr Dollond. With his Sketch Book in one pocket, the Camera Lucida in the other, and the sticks above mentioned in his hand, the amateur may rove where he pleases, possessed of a magical secret for recording the features of Nature with ease and fidelity, however complex they may be, while he is happily exempted from the triple misery of Perspective, Proportion, and Form,—all responsibility respecting these being thus taken off his hands.

In short, if Dr Wollaston, by this invention, have not actually discovered a Royal Road to Drawing, he has at least succeeded in Macadamising the way already known.

EDINBURGH, 2d July, 1829.

LIST OF THE ETCHINGS.

| АМ | lap showing Captain Hall's Route in America. To face the Title Page. |
|----------|---|
| I | . Niagara from Below. |
| 11. | Niagara from Above. |
| III | . Niagara on the American side. |
| IV. | General View of the Falls of Niagara. |
| | . Bridge across the Rapids at Niagara. |
| | . Bridge across Lake Cayuga. |
| | Buffalo on Lake Erie. |
| VIII. | The River Niagara flowing into Lake Ontario. |
| | Newly Cleared Land in America. |
| X. | The Village of Rochester. |
| XI. | View from Mount Holyoke in Massachusetts. |
| XII. | Western End of the Great Erie Canal. |
| XIII. | Canadian Voyageurs of Captain Franklin's Canoe. |
| XIV. | Mississagua Indians in Canada. |
| XV. | The River St Lawrence below Quebec. |
| XVI. | Village of Peterborough in Upper Canada. |
| XVII. | Bridge across the Congaree in South Carolina. |
| XVIII. | Frame-Work of the Bridge across the Congaree. |
| XIX. | Rice Fields in South Carolina. |
| XX. | Two Slave Drivers, and a Backwoodsman with his Rifle. |
| XXI. | Village of Riceborough in the State of Georgia. |
| XXII. | Log-house in the Forests of Georgia. |
| XXIII. | Pine Barren of the Southern States. |
| XXIV. | American Forest on Fire. |
| XXV. | Swamp Plantation on the Banks of the Alatamaha. |
| XXVI. | Embryo Town of Columbus, on the Chatahoochie. |
| XXVII. | A Family Group in the interior of the State of Georgia. |
| XXVIII. | Chiefs of the Creek Nation and a Georgian Squatter. |
| XXIX. | The Balize at the Mouth of the Mississippi. |
| XXX. | The Mississippi at New Orleans. |
| XXXI. | The Mississippi overflowing its Banks. |
| XXXII. | Wooding Station on the Mississippi. |
| XXXIII. | Steam-Boat on the Mississippi. |
| XXXIV. | An Ohio Steam-Boat on the Mississippi. |
| XXXV. | Shippingport on the Ohio in Kentucky. |
| XXXVI. | Backwoodsmen and Steam-Boat Pilot. |
| XXXVII. | Island of Logs on the Missouri. |
| XXXVIII. | Banks of the Missouri falling in. |
| XXXIX. | Prairie at the Confluence of the Missouri and Mississippi. |
| XL. | American Stage-Coach. |
| | |

NB.—It is recommended that the tissue paper be removed when the Plates and Letter-press are quite dry.

No. I.

NIAGARA FROM BELOW.

THIS Sketch represents the Great Horse-Shoe Fall of Niagara, seen from below. It forms the Canadian or English side of the Cataract, and is said to be 158 feet high.

The spot from whence this sketch was made, is at the turn of the rock round which persons must go who wish to enter behind the sheet of water. It is the best situation, I think, for an artist to choose, who should wish to make a Panorama of Niagara, the only method by which an adequate idea could be given of that extraordinary scene.

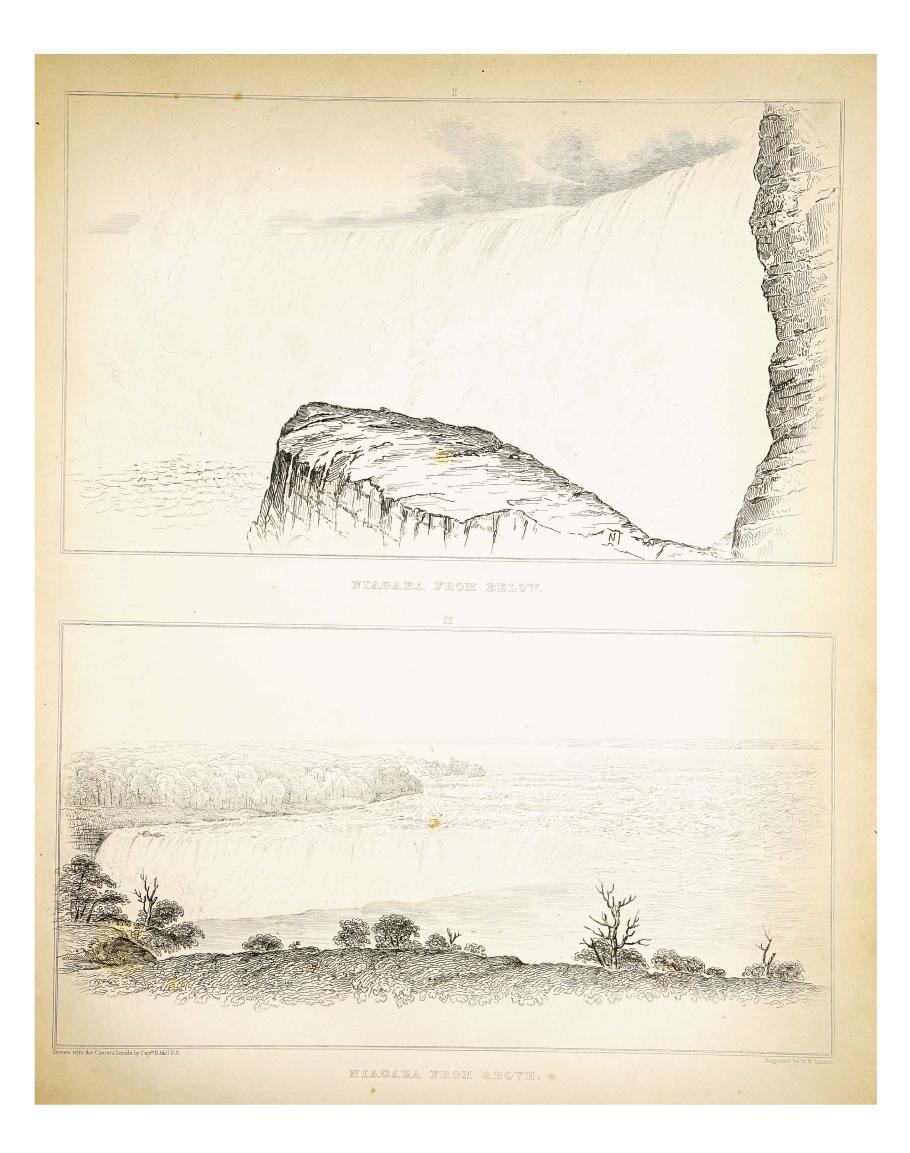
The rock over which the Cataract is poured, consists of limestone in horizontal strata. The top or crest of the precipice overhangs the base thirty or forty feet; and as the action of the blast caused by the Fall, is fast wearing away the lower part of the rock, which is much softer than that above it, the upper ledge, from time to time, is deprived of its support, and falls down. An instance of this process occurred in the autumn of 1828. It is in this way that the Falls are gradually receding towards Lake Erie, cutting, as they retire, a deep, wall-sided trench in the rock, which forms the level country in that neighbourhood.

No. II.

NIAGARA FROM ABOVE.

IN this Sketch, the Horse-Shoe Fall, seen from above, is drawn from the upper verandah of Forsyth's inn, which stands near the edge of the left bank, or the Canada side of the River. The wooded ground immediately beyond the Fall, is Goat Island, dividing Niagara into two portions, generally called the American and the English Falls. Immediately above the Falls on both sides, a series of Rapids occur, beyond which, the surface of the River is nearly on a level with the surrounding country, the State of New York forming the right bank, and Upper Canada the left. Lake Erie is not visible, being distant about sixteen or eighteen miles. The Falls are nearly equidistant from Lake Erie and Lake Ontario; the whole extent of the River Niagara being thirty-five miles.

The grandest view of the Falls is decidedly that from the Canada side, especially when seen from below, or indeed any where near at hand; for their full magnitude becomes apparent only when they are viewed from a short distance.



No. III.

NIAGARA ON THE AMERICAN SIDE.

THIS Sketch shows the crest of the American Fall. It is drawn from Goat Island, from whence the course of the Niagara towards Lake Ontario may be seen. The shore on the right hand is in the State of New York, that on the left, in Upper Canada. By far the prettiest views of the Falls are on the American side, chiefly those seen from Goat Island. There is, however, so much variety about Niagara, that it requires many days before a just conception can be formed of their beauty and importance, compared to those of other cataracts.

The rock from which the American Fall is precipitated, though of the same nature as that on the English side, viz. horizontal strata of limestone, does not overhang its base. It probably did so, however, at no very remote period, perhaps a century or two ago, for there lies at the bottom an immense pile of stones, evidently the result of some great breaking down of the overhanging precipice. The face of the cliff behind the sheet, as it is called, of the American Fall, is nearly perpendicular, though there can be no doubt the same process of wearing away is going on, as at the Horse-Shoe Fall, so that in time we shall have a cave behind it, similar to that on the opposite side.

No. IV.

GENERAL VIEW OF THE FALLS OF NIAGARA.

THIS Sketch gives a general View of the Falls of Niagara. The top of the American Cataract is seen in profile on the left. Goat Island comes next, and then the Great Horse-Shoe Fall, seen directly in front. The actual curvature of the Horse-Shoe part is almost lost in the cloud of spray which rises perpetually from the pool below, and effectually conceals the lower part.

The spiral wooden ladder, by which the Cliff may be descended, is seen at the right hand of all, and the roof of one of the great Hotels built on the top of the bank, over the trees. The commencement of the ladder on the American side, is just visible on the left of this Sketch.

No. V.

BRIDGE ACROSS THE RAPIDS AT NIAGARA.

THIS singular Bridge, which is built across one of the worst parts of the Rapids of Niagara, is placed about 200 yards above the crest of the American Fall, and extends from the main shore to Goat Island. It consists of seven divisions, and is 396 feet in length. There are six piers, constructed partly of stone and partly of timber.

The erection of such a bridge at such a place, is a wonderful effort of boldness and skill, and does the projector and architect, Judge Porter, the highest honour as an engineer. This is the second bridge of the kind; but the first being built in the still water at the top of the Rapids, the enormous sheets of ice, drifted from Lake Eric, soon demolished the work, and carried it over the Falls. Judge Porter, how-ever, having observed that the ice in passing along the Rapids was speedily broken into small pieces, fix-ed his second bridge much lower down, at a situation never reached by the large masses of ice.

The essential difficulty was to establish a foundation for his piers on the bed of a river covered with huge blocks of stone, and over which a torrent was dashing at the rate of six or seven miles an hour. He first placed two long beams, extending from the shore horizontally 40 or 50 feet over the Rapids, at the height of six or eight feet, and counterbalanced by a load at the inner ends. These were about two yards asunder; but light planks being laid across, men were enabled to walk along them in safety. Their extremities were next supported by upright bars passed through holes in the ends, and resting on the ground. A strong open frame-work of timber, not unlike a wild beast's cage, but open at top and bottom, was then placed in the water immediately under the ends of the beams. This being loaded with stones, was gradually sunk till some one part of it-no matter which-touched the rocks lying on the bottom. As soon as it was ascertained that this had taken place, the sinking operation was arrested, and a series of strong planks, three inches in thickness, were placed, one after the other, in the river, in an upright position, and touching the inner sides of the frame-work. These planks, or upright posts, were now thrust downwards till they obtained a firm lodgement among the stones at the bottom of the river, and being then securely bolted to the upper part of the frame-work, might be considered parts of it. As each plank reached to the ground it acted as a leg, and gave the whole considerable stability, while the water flowed freely through openings, about a foot wide, left between the planks.

This great frame, or box, being then filled with large stones, tumbled in from above, served the purpose of a nucleus to a larger pier built round it, of much stronger timbers firmly bolted together, and so arranged as to form an outer case, distant from the first pier about three feet on all its four sides. The intermediate space between the two frames was then filled up by large masses of rock. This constituted the first pier.

A second pier was easily built in the same way, by projecting beams from the first one as had been previously done from the shore; and so on, step by step, till the bridge reached Goat Island. Such is the solidity of these structures, that not one of them has ever moved since it was first erected, several years before we saw it.

No. VI.

BRIDGE ACROSS LAKE CAYUGA.

THIS Bridge is built across the still and beautiful Lake of Cayuga, in the State of New York. It is 1850 paces in length, and I have given it a place amongst these etchings, from its being the longest I ever saw.

No. VII.

BUFFALO ON LAKE ERIE.

THE Town of Buffalo stands at the extreme eastern end of Lake Erie. Its harbour forms the termination of the Great Erie Canal, which passes through the State of New York.

nation of the Great Eric Canal, which passes intogen the series in the Harbour of Buffalo. The distant In this Sketch the extreme end of the Canal is seen where it joins the Harbour of Buffalo. The distant land of Upper Canada forms the back ground, and to the right of all, is the commencement of the River Niagara just beginning to flow out of the Lake towards the Falls.

Lake Erie is about 230 miles long by 35 broad, and stands at the height of 565 feet above the level of the sea, and 334 feet above Lake Ontario. It is frozen over during the winter, and is, I believe, nowhere above 200 feet deep; though in general it is much shallower, and in many places not above 12 fathoms, or 72 feet.

No. VIII.

THE RIVER NIAGARA FLOWING INTO LAKE ONTARIO.

THIS Sketch shows Lake Ontario in the distance, with its horizon like that of the sea. The River Niagara, after leaving Lake Erie, flows, in the first instance, gently along, nearly on a level with the adjacent country, for sixteen or eighteen miles, to the Rapids, which are not quite a mile in length. It then comes to the Falls, and afterwards runs over a steep bed, at the bottom of a wall-sided valley, or cut in the rocks, of about 150 feet in depth, as far as Queenstown, a distance of about seven miles. At that point it enters the flat belt of densely-wooded land which forms the southern shore of Lake Ontario, and runs smoothly along for six or seven miles, till it is lost in that great inland sea.

This drawing was made from the top of General Brock's Monument, which stands on the heights of Queenstown.

Lake Ontario, according to Col. Bouchette, the Surveyor General, is 171 miles long, $59\frac{1}{2}$ in its greatest diameter, and 467 miles in circumference. Its average breadth is about 35 miles. The depth of Lake Ontario is seldom more than 300 feet; but Col. Bouchette tried for soundings in the middle with 300 fathoms of line, or 1800 feet, without reaching the bottom. Its surface being only 231 feet above the level of the Atlantic Ocean, many parts of this immense reservoir must be actually lower than the sea.

No. IX.

NEWLY CLEARED LAND IN AMERICA.

THE newly-cleared lands in America have, almost invariably, a bleak, hopeless aspect. The trees are cut over at the height of three or four feet from the ground, and the stumps are left for many years till the roots rot;—the edge of the forest, opened for the first time to the light of the sun, looks cold and raw; the ground, rugged and ill-dressed, has a most unsatisfactory appearance, as if nothing could ever be made to spring from it. The houses, which are made of logs, lie scattered about at long intervals; while the snake fences, constructed of split trees, placed in a zig-zag form, disfigure the landscape, and are at best but a poor substitute for hedges and hedge-rows. As land is of little value, no care is taken to limit the width of the roads, which are often twenty or thirty yards broad, along which carriages may find their way as they best can. The whole scene has no parallel in old countries.

This Sketch represents a place called Ridgeway, on the right bank of a rivulet, named the Oak Orchard Creek, 40 miles west of Rochester, in the State of New York, and close to the celebrated Ridge, or natural embankment, which, although it be 160 feet above the present surface of Lake Ontario, there is the strongest reason for supposing must once have formed the beach, when the water stood at a much higher level than it does at present.

No. X.

THE VILLAGE OF ROCHESTER.

THE Village of Rochester, in the western part of the State of New York, was commenced in 1812, antecedent to which period, the ground on which it stands was a thick forest. In 1815, its population was only 331; in 1818, it was 1049; in 1820, 1502; in 1822, it was 2700; in 1825, it had swelled to 5000, and in 1826, it had reached 7669 souls. In the beginning of 1827, it was ascertained that not one grown-up person out of eight thousand inhabitants, was a native of the village!

The Great Erie, or New York Canal, passes through the heart of this extraordinary village, over a magnificent aqueduct, which spans the River Genesee, at no great distance above a series of beautiful Falls. The Erie Canal at this point, is 501 feet above the tide waters of the Hudson River; 270 feet above Lake Ontario; and 64 feet below Lake Erie.

No. XI.

VIEW FROM MOUNT HOLYOKE IN MASSACHUSETTS.

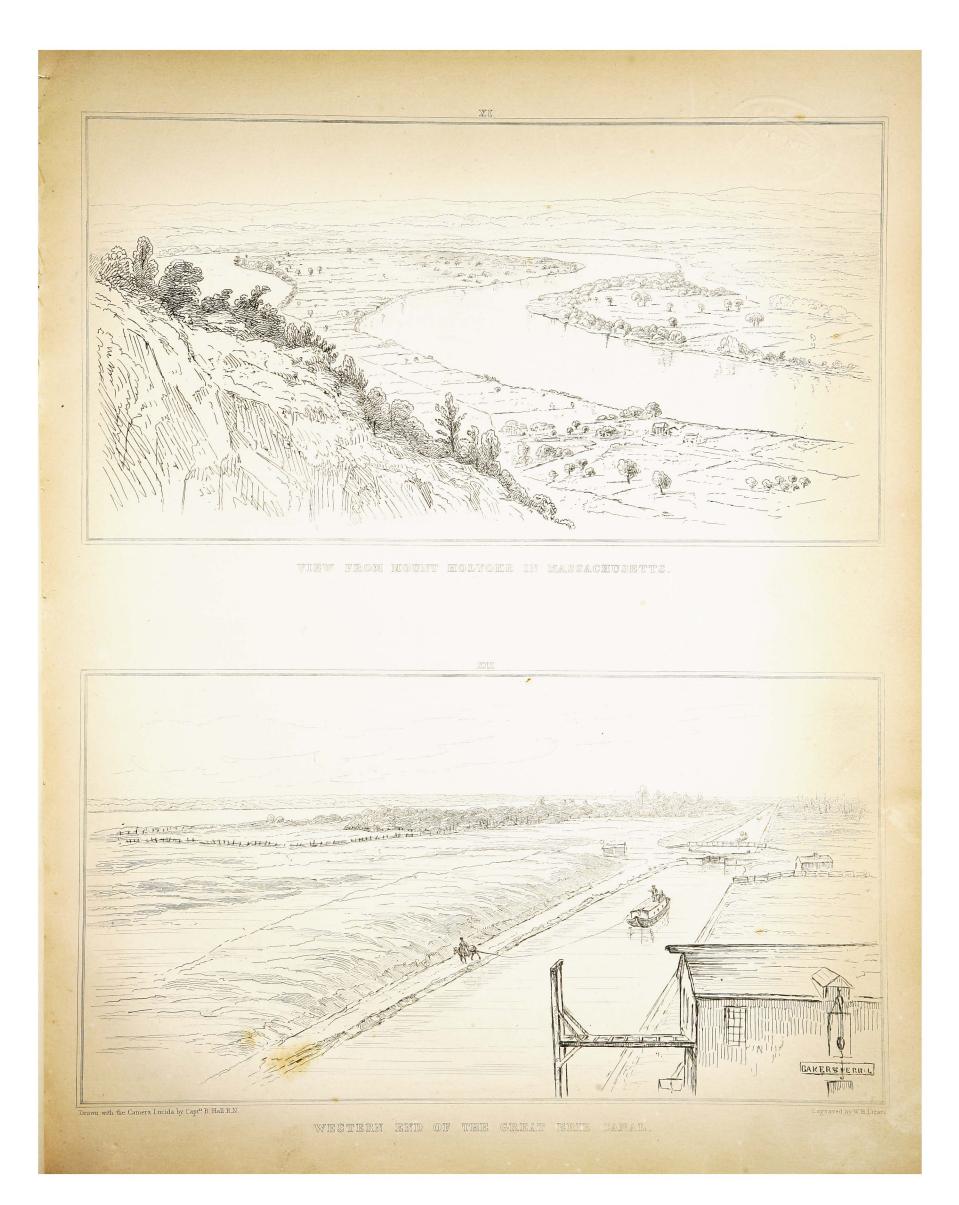
THE view from the top of Mount Holyoke, in the State of Massachusetts, is one of the most beautiful in America. I have placed it on the same page with the Erie Canal, to show the contrast between a scene entirely artificial, and one where nature is left to her own course. The loop, called the Hockanum Bend, which the noble River Connecticut forms near the base of Mount Holyoke, is highly characteristic of the manner in which the great American streams wind through the alluvial grounds. It is upwards of three miles round, while the Isthmus is only 150 yards across.

The village of Northampton, which stands a little to the right of the scene here sketched, is skirted by one of these bends, and is as pretty a country town as can be any where seen.

No. XII.

WESTERN END OF THE GREAT ERIE CANAL.

The Erie Canal, of which this shows the western end, commences at Albany on the Hudson River, 145 miles from New York, and it strikes Lake Erie at Buffalo; the whole length being 362 miles, and the number of locks 83. The whole amount of rise and fall overcome by these locks is 688 feet. The country through which this great Canal passes is admirably adapted to the purpose. At one place there is a 'long level,' as it is called, of $69\frac{1}{2}$ miles, without one lock. The width of the Erie Canal is 40 feet at top, 28 at bottom; it is four feet deep, being intended exclusively for boats. The locks are 90 feet in length, by 12 feet in the clear.



No. XIII.

CANADIAN VOYAGEURS OF CAPTAIN FRANKLIN'S CANOE.

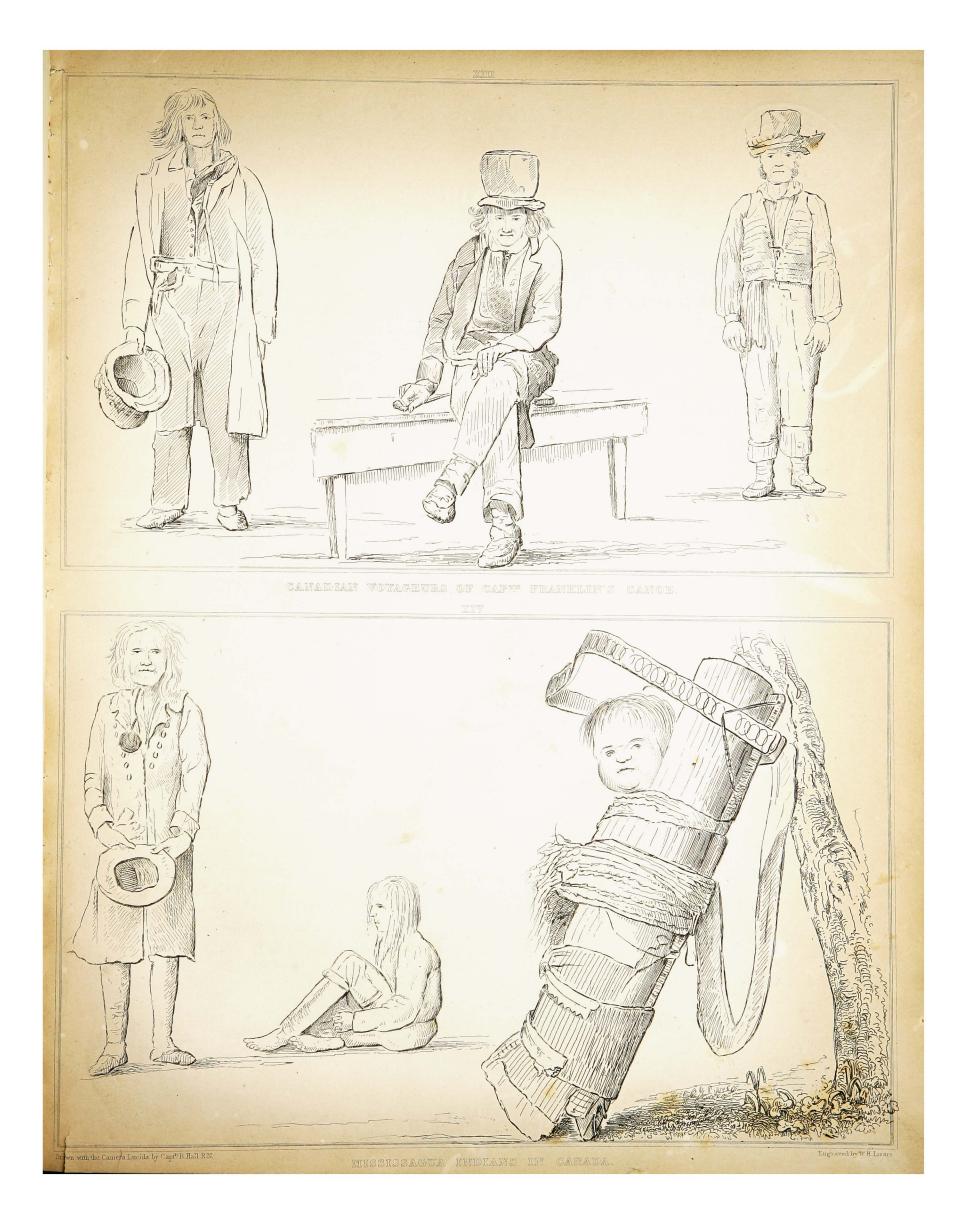
WE had the good fortune to fall in with Captain Franklin, in Canada, just as he returned from his perilous expedition. He had crossed the Upper Lakes, and finally descended the beautiful Ottawa, in a canoe paddled by 14 Voyageurs, of whom this Sketch represents three. The first, Francois Forcier, we were told, was a highly characteristic figure. The centre one, called Enfant La Vallée, was a very cheerful old fellow. The third, named Malouin, was the steersman of the canoe, and of course a very important personage. He accompanied Captain Franklin during the whole of his journey, while the others were his companions only a small part of the way—about fourteen hundred miles—from Fort William, on Lake Superior, to Montreal.

No. XIV.

MISSISSAGUA INDIANS IN CANADA.

THE old Gentleman on the left of this Sketch is a chief of the Mississagua Indians. He is a man of some consequence, and wears a silver medal with King George III. on it, in high relief, given to him for services in old times. The boy in the centre is of the same tribe, and also the child strapped up in a box, and placed against a tree. These little wretches are sometimes hung upon the branches, or laid flat on the ground, or suspended on pegs in the wigwams, as may suit the convenience of the Squaws, their mothers.

This Indian plan of keeping young folks out of the way of mischief, might perhaps be adopted with advantage in countries east of the Atlantic.



No. XV.

THE RIVER ST LAWRENCE BELOW QUEBEC.

THIS View shows the Estuary of the St Lawrence below Quebec. It is drawn from the hills near the Falls of St Anns, about 30 miles below the city, which is barely visible in the South-west in the extreme distance. The land to the left is the Island of Orleans, and that to the right hand is the northern bank of the St Lawrence, a fertile and densely-peopled district of country, inhabited by the old French Canadians,—a cheerful, well-bred, and apparently contented race.

No. XVI.

VILLAGE OF PETERBOROUGH, IN UPPER CANADA.

I HAVE had this Drawing etched merely on account of the interest of the spot itself, not on account of its picturesque effect. Peterborough is the name given to the head-quarters of the emigrants sent out by Government in 1825. As that experiment has been eminently successful, I have thought a sketch of the village might interest some people, particularly as its appearance is very characteristic of the raw aspect of those scenes. Five years ago, the spot on which this thriving village is erected was a solitary forest. It is now busy with shops of all kinds, mills, schools, churches, markets, and all the bustle of an active settlement.



No. XVII.

BRIDGE ACROSS THE CONGAREE IN SOUTH CAROLINA.

Most of the great rivers in America are crossed by means of wooden bridges, erected, generally, on stone piers, in order to withstand the violent floods, or freshes, which are often loaded with ice. The arches of these bridges are formed of a strong frame-work of timbers.

The whole bridge, from end to end, is generally covered over with a housing of planks to defend it from the rain; and it is not possible to conceive any thing more ungraceful than these huge, snail-like housings appear. The carriage-way within passes along in a sort of twilight, admitted from windows cut in the walls here and there.

This Sketch of the bridge across the Congaree shows one part covered over, the other still exposed.

Engineers in America differ as to the advantage of this housing plan. Some contend that the wood rots faster by its being excluded from the sun, and think it would be more lasting if frequently painted, without any housing at all. The interest of the money saved by dispensing with the cover, would more than pay for several coats of paint annually.

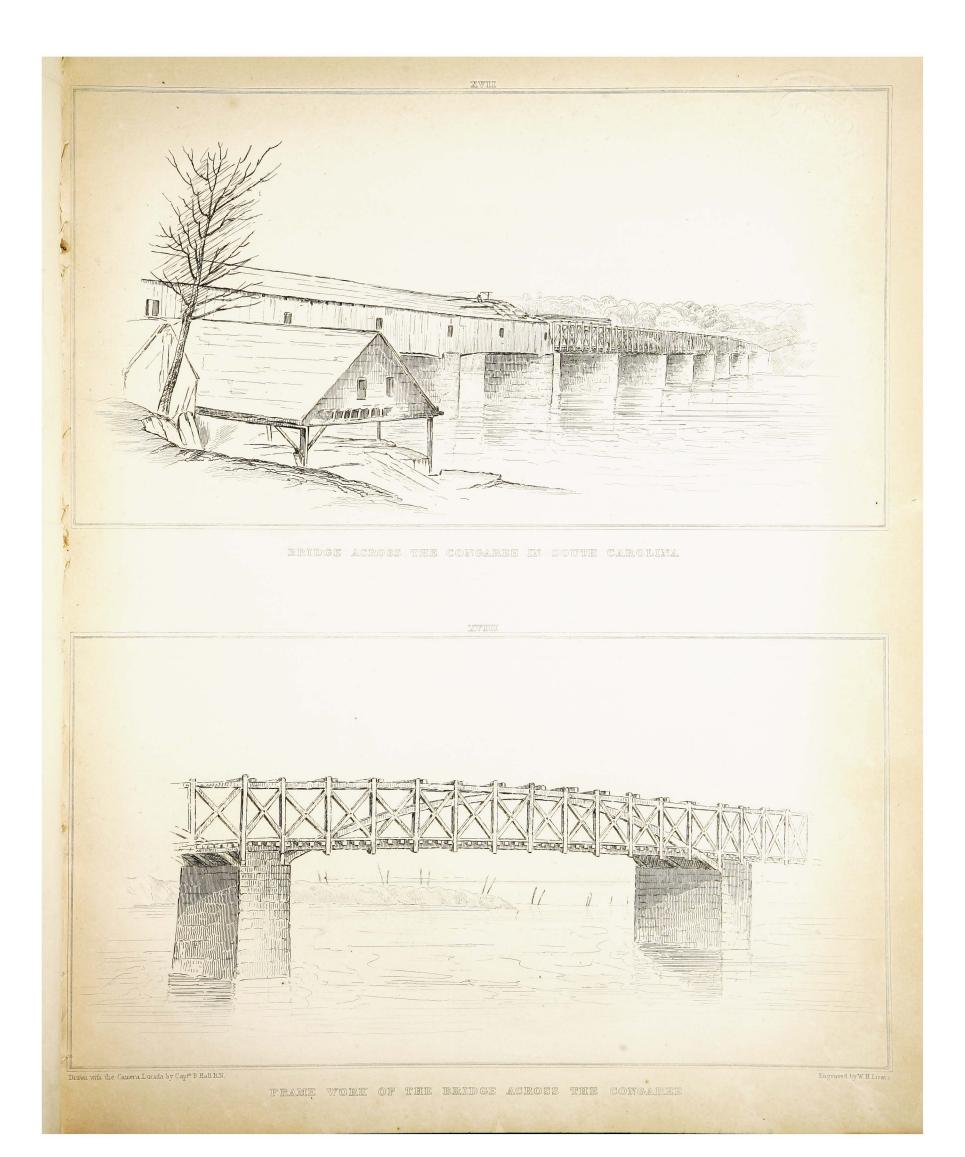
This grand bridge, which is near Columbia, the seat of government of South Carolina, is 1355 feet across, exclusive of the abutments. There are ten arches, resting on stone piers 30 feet high by 30 wide, and ten feet across.

No. XVIII.

FRAME-WORK OF THE BRIDGE ACROSS THE CONGAREE.

THIS Sketch shows the details of the frame-work in the Bridge above described. There are three sets of frames forming every arch; one at each side, as here represented, and one in the middle. A carriage-way lies on each side, and, of course, the American law of keeping to the right-hand of the road—the reverse of our custom in England—is strictly enforced. A notification is also written in large characters at the ends, warning the drivers against going faster than a walk, under a penalty of one dollar for every offence; for it appears the frame-work is apt to be injured by the tremor caused by a carriage moving quickly over the arch-ways, which are upwards of 120 feet in span.

.



No. XIX.

RICE FIELDS IN SOUTH CAROLINA.

THE Rice Fields of Carolina must be familiar to the imagination of every person in this country who has ever tasted curry. I have therefore ventured to give the sketch opposite, of a spot which is every way characteristic of a Rice Plantation. It lies on the banks of the Combahee River, in a marshy region, once covered with a forest, of which some of the trees may be observed still standing, though shorn of all their branches and leaves, by a process called girdling. This operation consists in cutting a niche in the tree, several inches deep, at the height of three or four feet from the ground. In process of time, the tree withers and dies. But it is many years before the roots are sufficiently rotten and loose to be removed with ease.

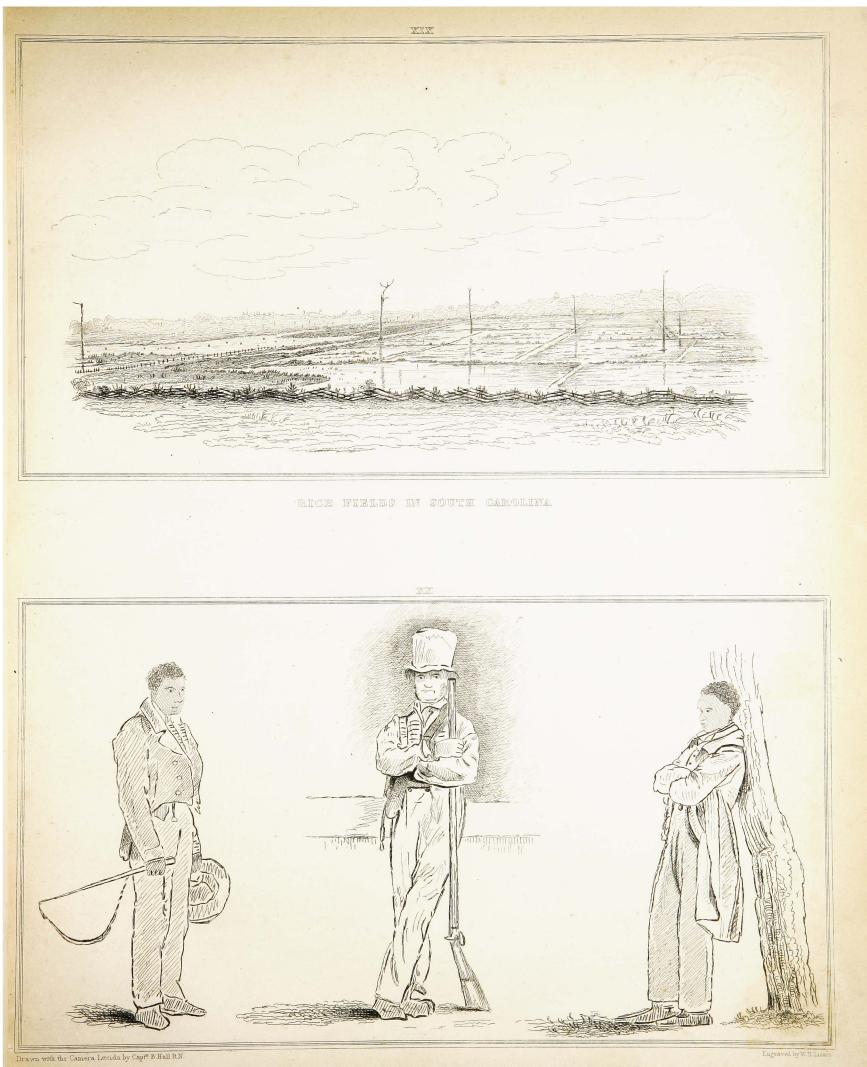
It appears to be essential to good rice cultivation, that there should exist the power of flooding the fields at pleasure, consequently the Planters seek out situations which lie on the banks of rivers, particularly those which come within the influence of the tides, without being mixed with salt water.

No. XX.

TWO SLAVE DRIVERS, AND A BACKWOODSMAN WITH HIS RIFLE.

THE figure on the left in this sketch, was a Black man in charge of a plantation in South Carolina which we visited in the absence of the proprietor. He was a man of information, and really very well bred—though he could neither read nor write. I did not suppose it possible that a negro in the situation of a slave-driver, could be so much like a gentleman—but so it was. The other driver on the right, is a native African, born near Timbuctoo. When twelve years old, he and his family were captured, and sent into slavery. On their way to the coast a lion, it seems, attacked the party, and overthrew this lad amongst others. On his breast the marks of what he said were the lion's claws are distinctly to be seen, and he told me that he remembered all the incidents which occurred on the occasion. He belongs now to a plantation in the State of Georgia.

The centre figure is a Backwoodsman of the State of Indiana, with a long rifle in his hand. He is one of those free and easy settlers called Squatters, who rove about in the unoccupied lands of the Western States, till they find a 'location' to suit them, and then they squat down upon it, declaring themselves the lords and masters of the property. The person here represented looked the character so well, that I should not have liked much to dispute his title. The rifle he carried was upwards of four feet long in the barrel, and carried a shot so small, that upwards of 100 of them went to the pound. With this he brought down squirrels, and, as he told me, even birds on the wing. These exploits, however, I did not witness.



TWO SLAVE DRIVERS AND A BACKWOODSMAN WITH HIS RUFLE.

No. XXI.

VILLAGE OF RICEBOROUGH IN THE STATE OF GEORGIA.

THE villages in the State of Georgia, especially on the sea coast, are most of them very pretty. The embellishments about the houses evince a degree of taste which reminds one of the Eastern States, where the people seem to take great pride in the ornamental dressings of their dwellings.

In this Sketch, the Pride of India tree will be observed growing before the house. It is not very handsome, but grows, I believe, with considerable rapidity, and is planted along the streets in most of the southern towns, particularly Charleston and Savannah, though it does not appear well calculated to afford shade.

The building here represented is what is called a frame-house, being made of timbers squared and fastened together, and afterwards covered with planks at the sides and ends, while the roof is either boarded or protected by shingles, a sort of wooden slate, two feet in length, and six inches wide. Almost all the houses in that part of the country have verandahs, or what they call piazzas.

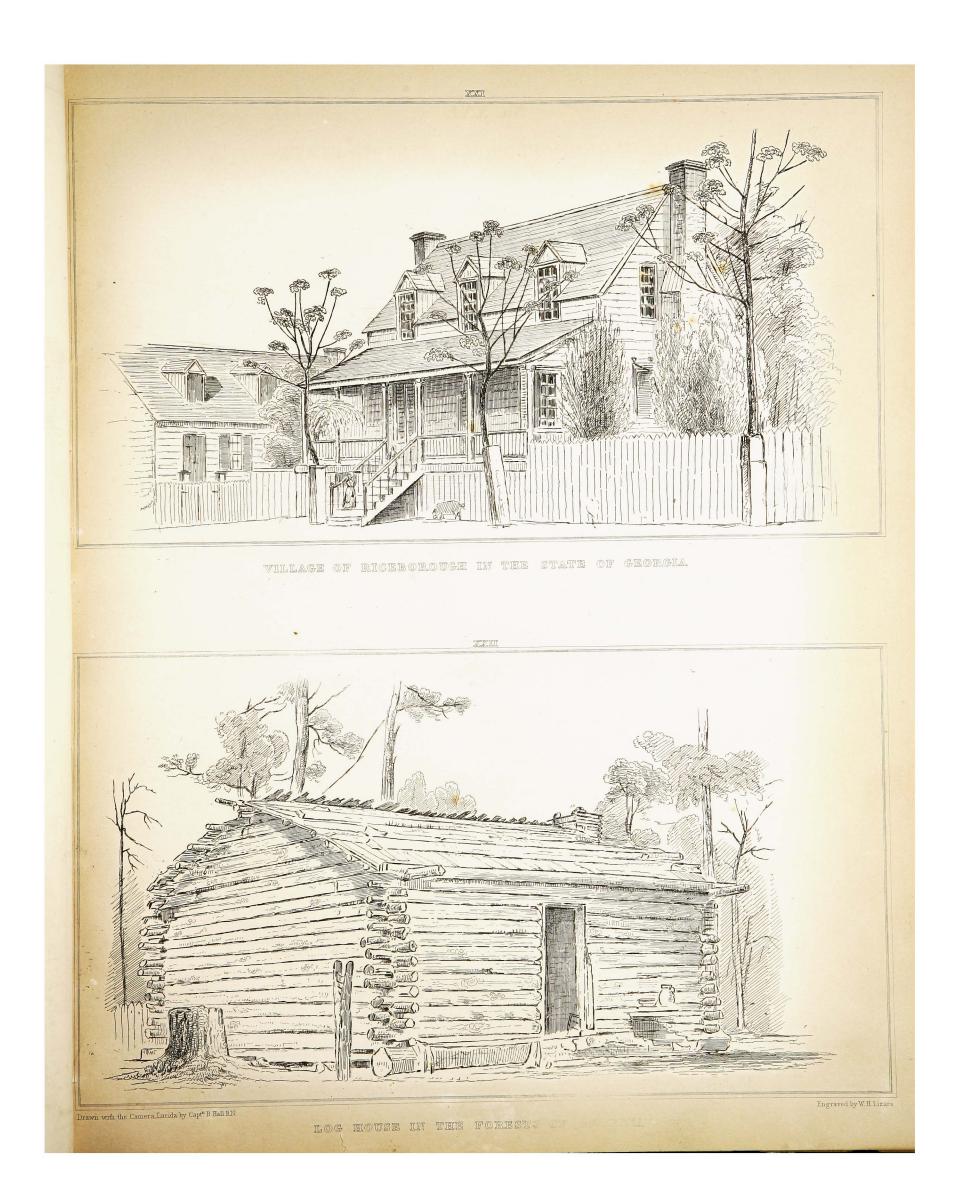
No. XXII.

LOG-HOUSE IN THE FORESTS OF GEORGIA.

In the interior of the country, or indeed in any newly cleared district of the forests in America, the houses are built of rough logs, notched at the ends so as to fit one another, and to allow of their coming almost in contact along the whole length. The chinks are then filled up with mud, or with moss; but in many parts of the country, especially in the Southern States, we came to log-houses where no such refinement was thought of. I remember upon one occasion being able, while lying in bed, to thrust my arm between two of the logs into the open air ! There is generally a brick or stone chimney at one end on the outside, communicating with a fire-place within.

While I was drawing this house, a negro came up to me and seemed so much surprised with the Camera Lucida, that I stepped on one side and told him to look in. But he shrunk back and excused himself. I laughed at him, and said he was afraid of being bewitched. "No ! no ! massa, not for that I no look !" and away he trudged to the other side of the road, where Mrs Hall was standing in the shade. "The man there," said he, "wanted me to look through that thing he has got—but I was afraid he would ask more money for the sight than I have to give;" evidently supposing that I was a Raree Showman !

The Camera Lucida every where excited its share of wonder and perplexity. "I presume," said a gentleman one day, after watching my operations for a long time in silence, "you mean to publish a geography of the country from your being so particular?"



No. XXIII.

PINE BARREN OF THE SOUTHERN STATES.

A CONSIDERABLE portion of the Southern States of America, and even as far as North Carolina, is covered with boundless forests of pine-trees. These districts are called Pine Barrens, and the soil being generally sandy, with a scanty supply of water, they are probably destined to remain for ever in the state of a useless wilderness. Upwards of five hundred miles of our journey lay through these desolate forests, and I have therefore thought it worth while to give a Sketch, which is sufficiently characteristic of these singular regions.

Occasional villages gave some relief to the tedium of this part of the journey; and whenever a stream occurred, the fertility of the adjacent lands was more grateful to the eye than I can find words to describe. Once or twice, in travelling through the State of Georgia, we came to high knolls from which we could look over the vast ocean of trees, stretching, without a break, in every direction, as far as the eye could reach; and I remember, upon one of these occasions, thinking that I never before had a just conception of what the word forest meant.

No. XXIV.

AMERICAN FOREST ON FIRE.

Sometimes the monotony of the Pine Barren was interrupted in no very pleasant style by the heat and smoke arising from the forest being on fire on both sides of us. But, as it happened, we were never exposed to any danger, or to serious inconvenience in consequence of these conflagrations.

The Sketch opposite shows the forest in the predicament alluded to. The tree in the foreground had caught fire near the ground, and having, I don't know how, been hollowed out in its centre, the flames had crept up and burst out some feet higher—so that they were roaring like a blast furnace, and rapidly demolishing the tree at the bottom, while the branches at top were waving about in full verdure, as if nothing unusual were going on below.



No. XXV.

SWAMP PLANTATION ON THE BANKS OF THE ALATAMAHA.

THE Alatamaha is an immense River which drains the greater part of the State of Georgia, and by its deposits has formed not only large tracts of alluvial land near its mouth, in connexion with the main shore, but has given birth to numerous islands, such as St Simon's, Sapelo, and others, well known to manufacturers as the spots on which the finest cotton in the world is grown.

For many leagues up this noble river, and on both its banks, there extends a belt of flat marshy ground, densely wooded, chiefly with cypress, magnolia, and a large tree called the cotton-wood. These lands, being exposed to annual inundations, are utterly uninhabitable in their natural state; and unless they be surrounded by dikes or embankments, can be turned to no account. When, however, this object has been effected, and the trees cleared away, a soil of the utmost fertility rewards the cultivator for his trouble. Sugar, cotton, and rice, flourish in these spots with extraordinary luxuriance. By a series of canals connecting with the river, a ready communication is maintained with every part of these plantations, which, when well managed, are amongst the most interesting specimens of Southern farming I met with.

The Scene sketched is a swamp plantation, called Hopeton, on the right bank of the Alatamaha.

No. XXVI.

EMBRYO TOWN OF COLUMBUS, ON THE CHATAHOOTCHIE.

THIS Sketch shows the embryo Town of Columbus, on the left bank of the Chatahootchie River, which divides the State of Georgia from that of Alabama. The territory in which Columbus stood, or rather was intended to stand, had been recently acquired by Georgia from the Creek nation of Indians. According to the laws of that State, all the new country so obtained was divided amongst the citizens by lottery, excepting a certain spot on the left bank of the Chatahootchie River, five miles square, or about sixteen thousand acres, on which it was agreed by the State Government, to establish a city. Previous to the actual commencement of this undertaking, it was of course necessary to survey the ground, lay out the streets, give them names, and make other arrangements, to prevent confusion. But although six weeks or two months were still to elapse before a foot of the building-ground of the future city could be disposed of, a great number of persons had assembled from different parts of the United States, in order to select favourable spots for their future dwellings. Upwards of nine hundred souls were collected under the trees, and this Sketch represents the most populous and best cleared part of the city. The other streets were only just marked out by narrow lanes, a yard wide, cut through the brushwood by the surveyors. The principal avenue, I was told by one of the inhabitants, was to be one league in length and sixty yards wide, which he assured me, with the utmost gravity, would be completed in two or three years.



No. XXVII.

A FAMILY GROUP IN THE INTERIOR OF THE STATE OF GEORGIA.

ALL these Figures were sketched, by their own desire, at a house where we slept in the interior of the State of Georgia. The old gentleman, who, by the way, chose his own attitude, happened to catch a glimpse of the Camera Lucida when our things were lifted out of the carriage, and nothing would satisfy him but an immediate proof of its powers. "You shall draw me, sir," said he, " and all my six sons, and then I shall be satisfied that there is no exaggeration in this matter." I was quite willing to gratify our friendly host, who had taken us in, and though he kept no tavern, promised us a night's lodging. In those wild parts of the country, indeed, this is universally done, and regular charges are made, though the whole arrangements are considered voluntary.

Before I got above half way through the family group a furious thunder-storm came on, which lasted till it was too dark to use the instrument; but the old man was well pleased when I told him his picture, and that of his sons, would probably be seen in the Old Country, a thousand leagues and more from his dwelling in the forest.

No. XXVIII.

CHIEFS OF THE CREEK NATION AND A GEORGIAN SQUATTER.

THE Chief on the left hand in this Etching, was the well-known Little Prince, who for many years was head of the Creek nation of Indians, and a man of considerable energy of purpose and respectability of character. At the time we saw him, he was upwards of 80 years of age; but he seemed much flattered by having his likeness taken before he died, an event which took place a few weeks afterwards. The position of his fingers, drawn into a point, was described to me as being characteristic of the old man; at all events, he was evidently satisfied to observe that the Camera had not omitted this peculiarity. The other Chief was drawn a day or two afterwards.

I have inserted between the two a very different description of person,—one of those settlers who, in other parts of the country, are called Squatters, but who bear the appellation of Crackers in Georgia, men who set themselves down on any piece of vacant land that suits their fancy, till warned off by the legal proprietor. The man here sketched lived, I was assured, almost entirely by hunting and shooting.



CHIEFS OF THE CREEK NATION, & A GEORGIAN SQUATTER

No. XXIX.

THE BALIZE AT THE MOUTH OF THE MISSISSIPPI.

THIS dreary spot, which lies at the extreme end of the Delta of the Mississippi, has been chosen by the Pilots as their place of abode; and certainly it is the nearest thing possible to being at sea, without actually going afloat.

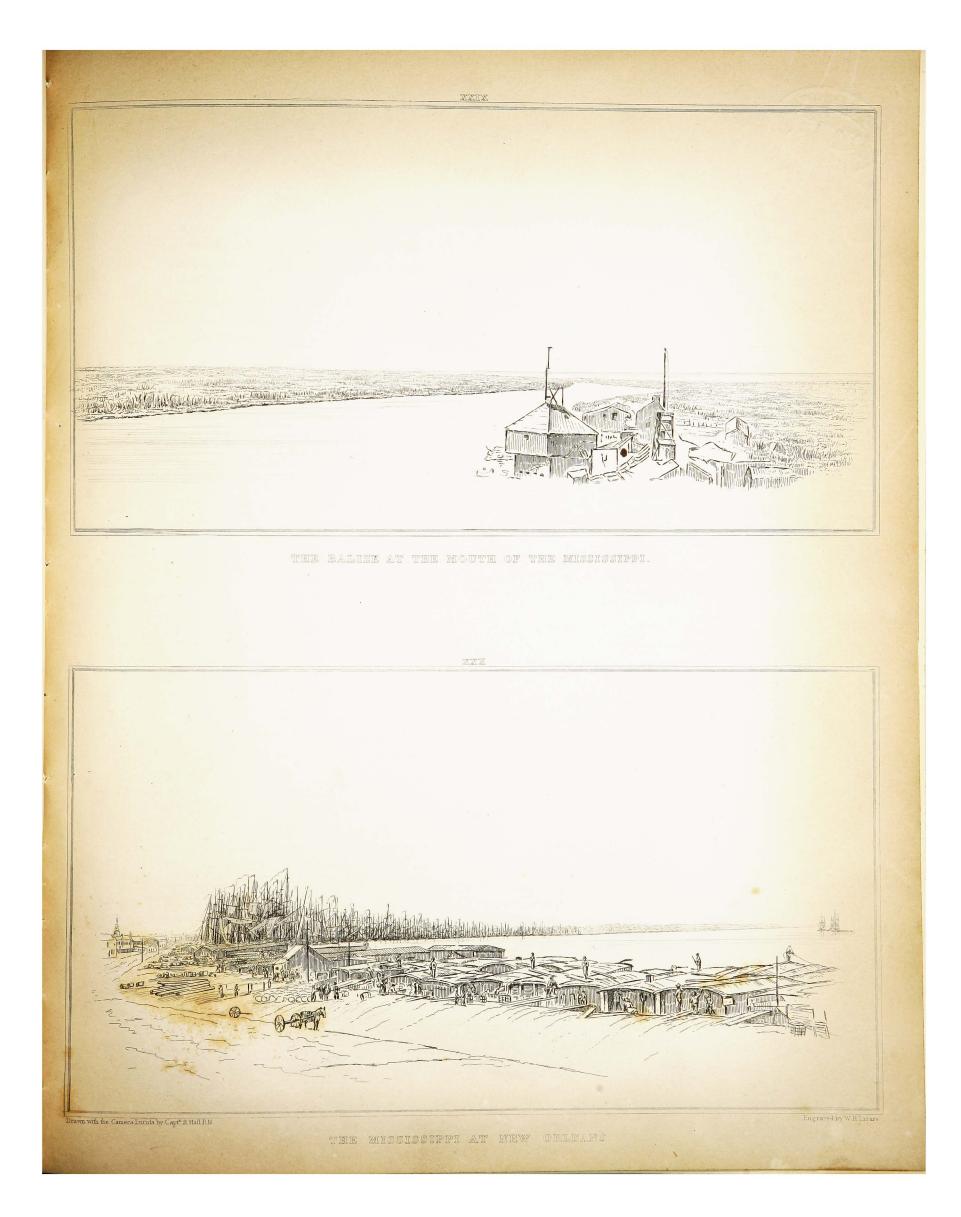
The whole surface, as far as the eye can reach, in the North, East, and West, is covered with rushes and canes, or is bristling with trunks of trees brought down by the floods of the Mississippi, and stranded on the boundless mud banks which form the edge of the Delta. No firm land, and no growing trees, except crops of young willows, are any where to be seen—nothing, in short, but swamps and bayous, or natural canals, connecting the various branches of this enormous river, as it falls into the Gulf of Mexico. The sea occupies more than half of the view from the Balize, and it is really cheerful to turn one's looks in that direction, away from the hopeless desolation of the cane-brakes, and marshes, through which the Mississippi steals its way.

No. XXX.

THE MISSISSIPPI AT NEW ORLEANS.

THE surface of the Mississippi at New Orleans, at the time of our visit, in April 1828, was six or seven feet higher than the level of the streets of the city; the water being kept out by an artificial embankment, called a Levée, which is seen in the Sketch. The city stands on the left, or eastern bank of the river.

Along the Levée are ranged many hundreds of ships; and in the foreground, still higher up the stream, are collected a number of flat-bottomed boats, called Arks, which have floated down from the interior, laden with the produce of the countries bordering on the Mississippi, or whose rivers are tributary to that mighty flood. These Arks, which vary from 40 to 80 or 90 feet in length, and from 10 to 20 in width, are rudely constructed of planks bolted together by wooden trenails, and are navigated by five or six men, who manage, by means of long oars, to keep them in the centre of the stream during the day-time, and at night they make fast to a tree. The crews of these primitive vessels, when they have disposed of their cargoes, return to their houses on the upper decks of the steam-boats, which start daily from New Orleans. In former times they were obliged to find their way back again through the forests, or by the still more laborious method of rowing against the stream. From three to nine months was the period of those tedious journeys, or still more tedious voyages. At present the same distance is gone over in ten or twelve days !



No. XXXI.

THE MISSISSIPPI OVERFLOWING ITS BANKS.

At certain seasons the Mississippi overflows its banks, at all those places where no Levées have been made. During the latter end of April, and the beginning of May, when we passed along, we found the river flowing over the western side, for the distance of several hundred miles. The spot here represented, is on the right bank of the river, at the distance of 977 miles from the sea, by the Pilot Books. The shore seen in the distance, is in the State of Tennessee ; that on the left, in the State of Missouri.

No. XXXII.

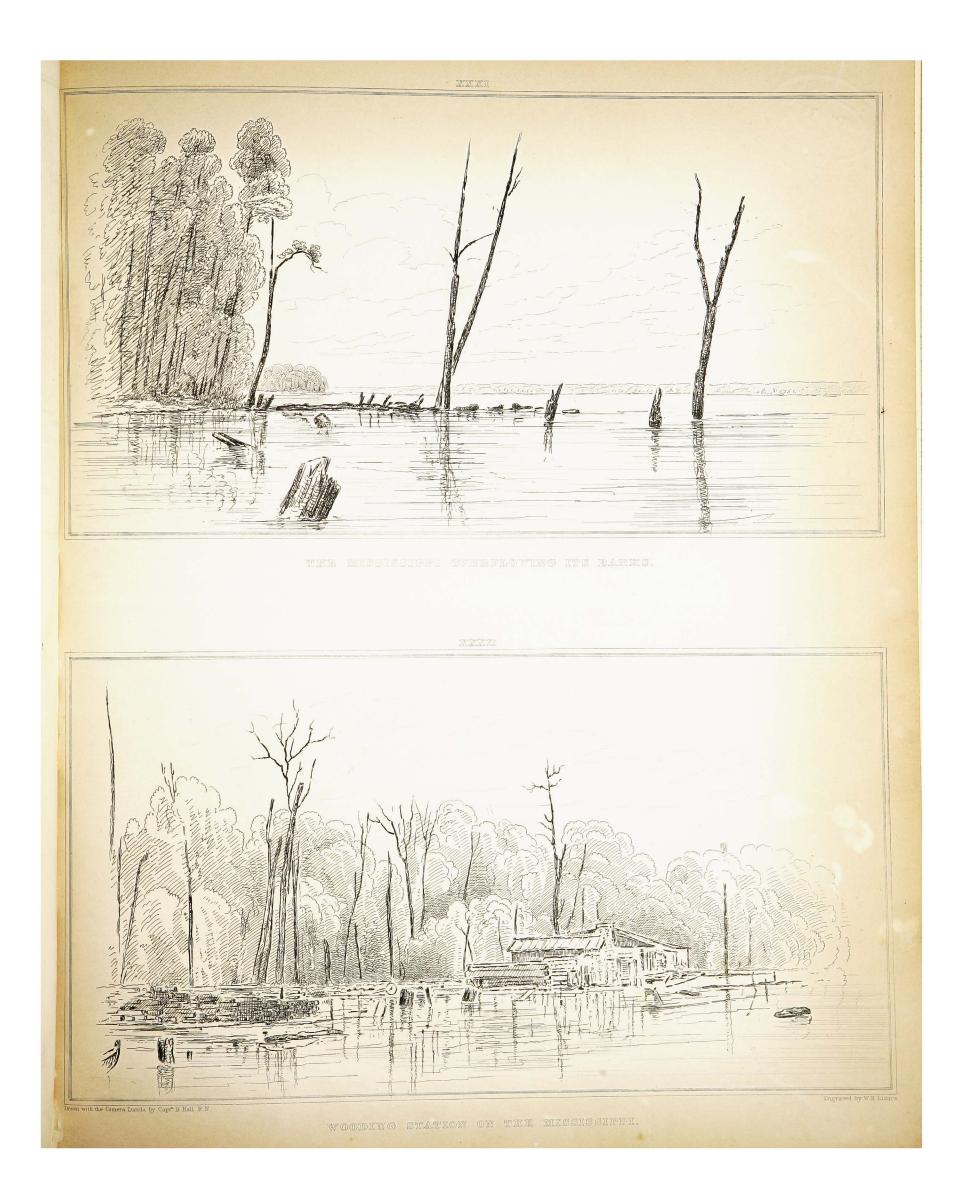
WOODING STATION ON THE MISSISSIPPI.

As the Steam-Boats on the Mississippi, and indeed all over America, burn nothing but wood, it becomes necessary to make occasional stops to replenish their stock of fuel. Accordingly, on the banks of the great rivers—which are all now covered with these vessels—many settlers find it a profitable occupation to devote themselves exclusively to preparing stacks of firewood, close to the bank, ready for the boats as they pass, either by day or by night.

The Wooding Station here sketched, lies abreast of the Islands named 62 and 63 in the maps of the river, and is distant 775 miles from the sea, in the territory called Arkansas or Arkansaw.

The Steam-Boat having been placed alongside of the bank, a hawser from her is made fast to the nearest tree. Several stout planks are then laid from the vessel's side to the shore, along which the crew and deck passengers hurry to the piles of firewood, and return with shoulder-loads of billets, for which the Captain has been striking a bargain with the settler. The price per cord varies from a dollar and a half, to three dollars. A cord consists of a heap or stack, eight feet long by four high, each billet in the pile being four feet in length.

The Deck Passengers alluded to, are chiefly the crews of the Arks spoken of in describing Sketch XXX., returning to their homes, who are always ready to arrange with the Captain to assist in carrying aboard the firewood, on condition that he abates a portion of their passage-money.



No. XXXIII.

STEAM-BOAT ON THE MISSISSIPPI.

THE Steam-Boats on the Mississippi, which are vessels from two to four hundred tons burden, are moved by one engine, generally on the high-pressure principle. As the water in which they have to navigate is always smooth, and the winds are seldom violent, they are enabled to adopt two very commodious devices, which it would be impossible to apply to sea-going steam-vessels. The deck is made to extend on both sides eight or ten feet beyond the hull, by which a great additional width is acquired, while over this wide space they are enabled to form two tiers of accommodations above the deck. In the lower range the usual luxuries of a packet are provided for passengers who require state-rooms or sleeping births; and those who have the means of paying for such entertainment have an ample table provided for them. There is in all these boats, also a separate cabin for the ladies in a third suite, which lies below the deck.

The upper tier of all is occupied by what are called Deck Passengers, chiefly consisting of the men who, having floated down the Mississippi in their great flats or arks, take advantage of the steam-boats to return home again. These deck passengers, of course, pay a much smaller sum than those below stairs, as they provide themselves, and have but rough lodgings allotted them. They generally contract for an abatement of two dollars from their passage-money, on condition of assisting to carry on board the fire-wood; so that, for about eight dollars, or about L.1, 14s., they are carried upwards of a thousand miles.

This Sketch shows the Bows, or foremost end, of the Steam-Boat Philadelphia at a wooding station on the Mississippi, 838 miles from the sea, on the right bank, in the territory of Arkansas.

No. XXXIV.

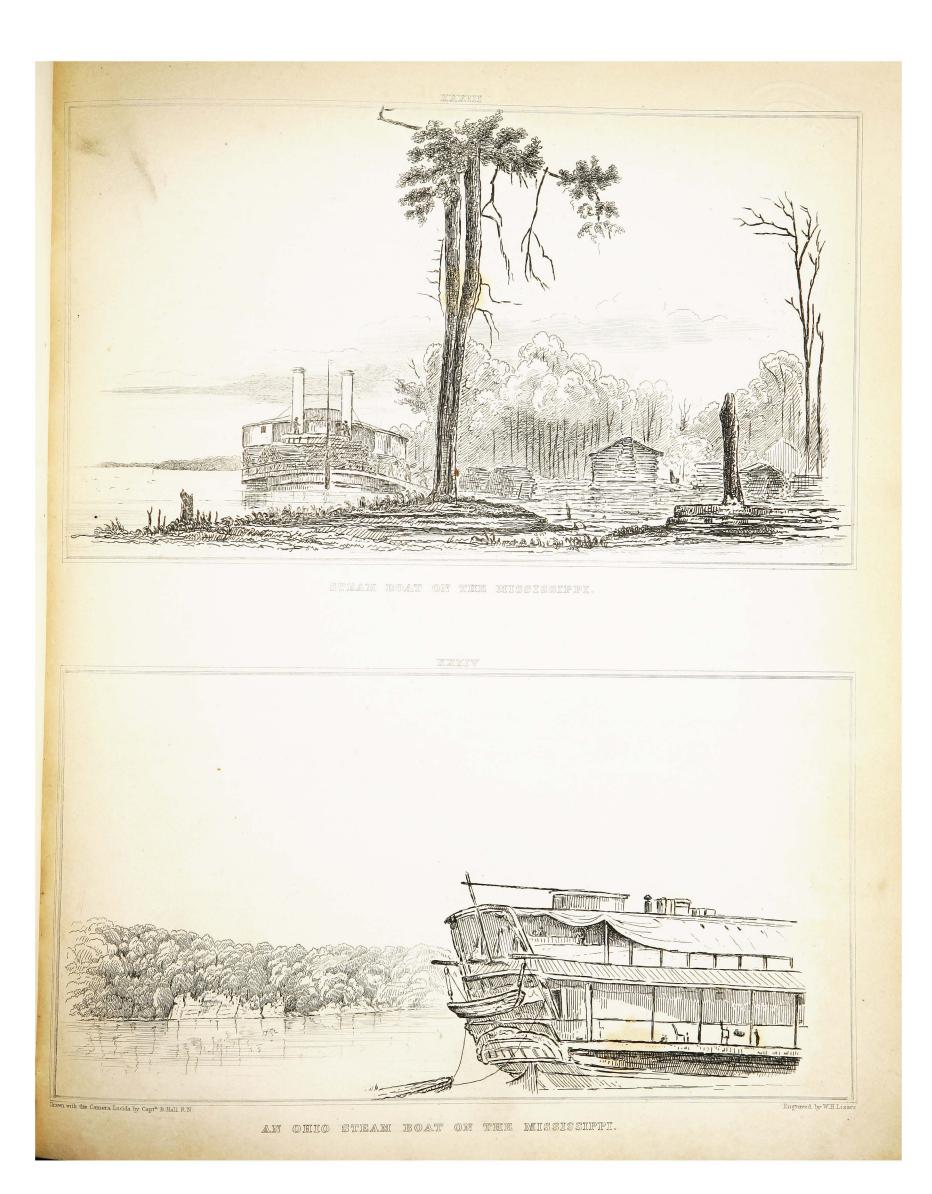
AN OHIO STEAM-BOAT ON THE MISSISSIPPI.

THIS Etching shows both the stern and the quarter of a Steam-Boat similar to the one last mentioned. The double row of apartments built above the deck, is here shown, as well as the verandah, which extends along the sides of the lower tier, and is supported by the projecting piece, or Guard, as it is called.

It will be observed, that although a railing runs along the edge of the deck, it affords no protection to a child; so that during our voyages on the American rivers—which, taken altogether, amounted to 5237 miles—we could never trust our infant—then two years old—for a single moment out of our sight, and hardly out of our grasp.

A melancholy story was told to us in one of the steam-boats on the Alabama river. During the preceding trip a family had taken their passage to Mobile, and one of their party being a little boy, who had just begun to run about, they agreed to watch the little fellow in turn. By some unfortunate accident this arrangement was neglected; each person thought him under charge of the other. At length the child was missed; but it was never ascertained when he had gone, nor in whose watch the poor young thing had toddled overboard !

The scene here sketched is on the Mississippi, sixty miles above the confluence of the Ohio, at the distance of 1132 miles from the sea. The Cliff on the opposite or western side of the river, is called the Grand Tower Rock, and was the first thing like a stone bigger than the head of a pin, which we had seen on the banks of the Mississippi, all the way from the Gulf of Mexico.



No. XXXV.

SHIPPINGPORT, ON THE OHIO, IN KENTUCKY.

SHIPPINGPORT, on the Ohio, is one of the great landing-places for the steam-boats which come from New Orleans, or from St Louis, and other places, both above and below the confluence of that river with the Mississippi. It lies on the left bank, two miles below Louisville, the principal town in Kentucky. A series of Rapids, or as they are termed on the spot, Falls, occur at this part of the stream, and at certain seasons effectually interrupt the navigation. When the water is high, however, the largest steam-vessels can easily pass over the Rapids, and proceed onwards to Cincinnati, in the State of Ohio, or to Pittsburgh, in Pennsylvania; but during a considerable portion of the year the intercourse by water is seriously checked. The cargoes of all vessels are then obliged to be discharged at Shippingport, thence to be transported by land to Louisville, which is at the top of the Falls, and there reshipped on the Ohio, in steam-boats. In order to avoid the delay and expense of these transhipments, the public-spirited capitalists of Kentucky have cut a canal round the Rapids, of such dimensions, that any steam-boat will be able to pass through and proceed onwards. The navigation of the Ohio, however, in the dry season, is much interrupted during its whole course, by shoals or bars. But the skilful and enterprising ship-builders of those busy regions have already devised steam-boats with flat bottoms, and so buoyant, that these perplexing obstacles have been in a great measure overcome.

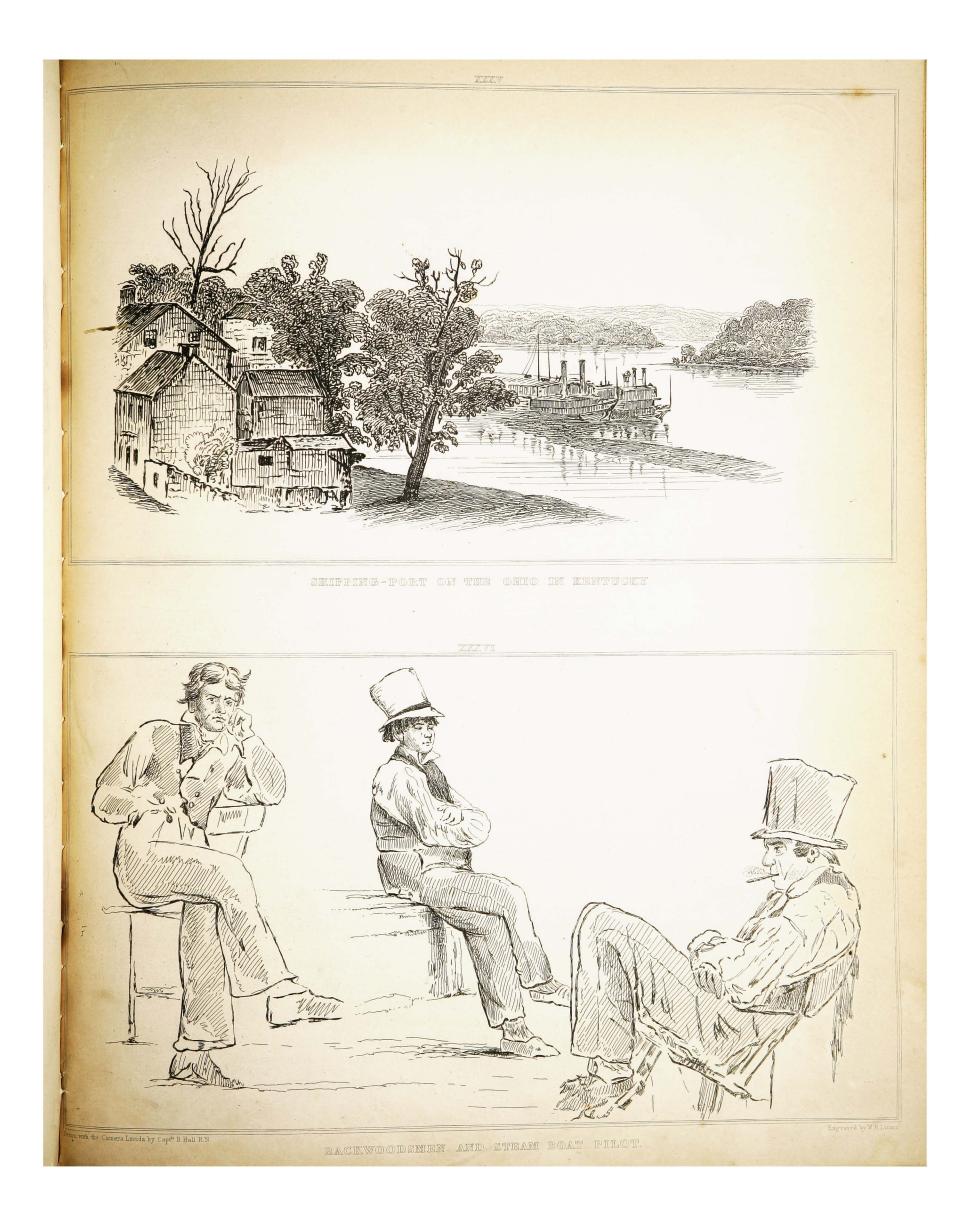
No. XXXVI.

BACKWOODSMEN AND STEAM-BOAT PILOT.

THE person swinging in his chair, on the right hand in this Sketch, is one of our pilots in the Philadelphia steam-boat on the passage from New Orleans to Louisville, a distance of 1430 miles. This man, and another pilot, alternately stood at the wheel and steered the vessel, for eleven successive days, without any further intermission of their labours than the short moments when we stopped to take in supplies of fire-wood, twice a-day.

The left-hand figure, a settler on the banks of the Ohio, and a regular Backwoodsman, told me, with all the coolness imaginable, that he had made his fortune by trading in negroes. On enquiring more particularly into the way in which he had proceeded, he said he had first saved money enough to buy three blacks, whom he carried down to New Orleans, upon each of whom he cleared 150 dollars. Next season he carried down eight or ten, and so on for some years, taking a larger and larger drove every year, till at length having made money enough, he bought the ground on which he was now settled, where he devoted his whole attention to agriculture, and preparing fire-wood for the steamboats.

The middle personage, who looks so well pleased with himself, was one of about a hundred deck-passengers on board the steam-boat in which we ascended the Mississippi. I had been amusing myself with sketching four or five of his companions, and was pretty well tired with my work, when this man came up, and entreated so earnestly to have his picture drawn, that I set up the Camera Lucida again. As soon as I had finished his portrait, such as it was, he leaped up, snapped his fingers, and cried out, "Now, lads! I shall appear in a book!" I wish I knew how to send my friend a presentation copy.



No. XXXVII.

ISLAND OF LOGS ON THE MISSOURI.

THE Mississippi and Missouri, as far as I had an opportunity of seeing them, follow a very tortuous course through the alluvial soil deposited by the floods of past ages. These level districts are thickly covered with wood, or as the local expression is, are heavily timbered. But the rivers in their progress, especially during the seasons when they are flooded, are perpetually scooping away the banks at one place, and depositing mud and drift-wood at others. These opposite circumstances produce very interesting results, on a greater or less scale, according to the particular condition of the river at the moment, and to the shape of the bend or reach, in which they are streaming along.

The scene here represented is that of a small island in the Missouri, which has acted as a sort of trap to the myriads of logs brought down from the upper countries. These have gone on accumulating for several years, till a raft has been formed extending a long way up the stream. We could just discover that its upper end joined the main shore—so that, in strictness, this sketch is not correctly named an island of logs. It ought to have been called a raft of drift-wood, formed by an island in the Missouri, and reaching from it, like a floating bridge, to the bank.

In some of the great western rivers, these rafts extend not only quite across the stream, but cover its whole surface for several leagues. The great raft on the Atchafalaya, which has been accumulating for upwards of half a century, extends for nearly twenty miles, but with various open spaces, which reduce the area of the different rafts to about 10 miles of timber, matted together to the thickness of about eight feet, and 220 yards across.

No. XXXVIII.

BANKS OF THE MISSOURI FALLING IN.

A STILL more interesting set of phenomena occur at those places, where the banks, instead of gaining ground, are undermined and demolished. This happens generally at the concave part, or ' bottom of the bend,' as it is called, into which the river is forced with greater rapidity than at any other place. The soil, as I have before mentioned, being composed entirely of alluvial materials, is easily worn away, and the banks are every now and then precipitated into the river with a grand crash, carrying along with them the trees growing above, by tens of thousands at a time.

During an excursion which Mrs Hall and I made along the left bank of the Missouri, about 20 miles above its confluence with the Mississippi, we came to a point where a catastrophe of this kind had taken place probably not ten minutes before. Before the river had swept away the fallen trees, I made a hasty marking of the scene with the Camera Lucida, and then changed my position only a few yards to make a sketch of the island, or raft of logs, given in the upper division of this plate. In the mean time, however, a second undermining of the banks had taken place near the same spot, and several acres of the land, thickly covered with trees, were dashed full into the Missouri. But, alas! though we heard the noise, which was like that of thunder, and felt the tremor, and ran instantly back again to the point, we were too late :—all was now still—though the very trees I had been sketching five minutes before, were lying either prostrate on the surface of the river, or with their roots high in the air, and their heads buried in the mud at the bottom !



No. XXXIX.

PRAIRIE AT THE CONFLUENCE OF THE MISSOURI AND MISSISSIPPI.

THE great Prairies of America are familiar, if I mistake not, to the imagination of Europeans, but with what degree of correctness I can hardly say. We certainly were not disappointed, and were quite sorry to part with them. We crossed several in the State of Illinois, one of which, the Grand Prairie, was, I think, twenty miles wide at the place where we passed it. Farther to the north, however, it becomes many times wider, though it is still quite insignificant in size compared to those gigantic deserts of this denomination which lie between the Missouri mountains, and the bed of the Mississippi. But a sufficiently correct idea, I have been told, may be formed of the whole from seeing one or two of these lesser ones.

The opposite Sketch gives the appearance of a pretty little Prairie, forming part of the triangle just above the junction of the Missouri with the Mississippi. The distant land is a rocky ridge in the State of Illinois; between which range and the belt of trees seen in the middle distance, flows the Mississippi from left to right. The Missouri lies behind the spectator who is looking north from the top of a natural mound of a conical form, about 200 feet high, one of two hillocks called the Mamelles. The confluence of these mighty rivers is about 15 or 20 miles to the eastward of this spot. The insulated trees dropped over the Prairie, when seen through the haze, or in the twilight, often look very like ships at sea.

In crossing these plains we saw many herds of deer, and we had also the good fortune to encounter one wolf—the only genuine wild beast, by the way, I ever saw in my life, though I must have traversed some thousands of leagues in different countries, of which they were the appropriate inhabitants.

No. XL.

AMERICAN STAGE COACH.

THE American Mail Stage in which we journeyed over so many wild as well as civilized regions, deserves a place at our hands. And if the sight of this Sketch does not recal to persons who have travelled in America the idea of aching bones, they must be more or less than mortal !

The springs, it will be observed, are of hide, like those of the French Diligence—and every thing about it is made of the strongest materials. There is only one door, by which the nine passengers enter the vehicle, three for each seat, the centre sufferers placing themselves on a movable bench, with a broad leather band to support their backs. Instead of panels, these Stages are fitted with leather curtains. The baggage is piled behind, or is thrust into the boot in front. They carry no outside passengers—and indeed it would try the nerves as well as the dexterity of the most expert harlequin that ever preserved his balance, not to be speedily pitched to the ground from the top of an American coach, on almost any road that I had the good fortune to travel over in that country.

