

ary of civilized life. It has increased the sum of human happiness, not only by calling new pleasures into existence, but by so cheapening former enjoyments as to render them attainable by those who never could have hoped to share them. Nor are these effects confined to England alone; they extend over the whole civilized world; and the savage tribes of America, Asia, and Africa, already begin to feel, in a thousand ways, directly and indirectly, the advantages of this all-powerful agent.

Regarded as affecting the material condition of man, the steam-engine has no rival. Considered as a moral and social agent, it may be placed beside, if not before, the press. Extensive as were the former powers of that vast instrument of intellectual advancement, who can measure the augmentation which its influence has received from its combination with the steam-engine?

But among the unnumbered benefits which this creation of Watt has showered on mankind, there is assuredly none attended with consequences of such magnitude and importance as the powers of locomotion, both by land and water, which it has conferred upon us. Every line of easy and rapid intercommunication between nation and nation is a new bond of amity, and a channel through which streams of reciprocal beneficence will flow. The extension of commercial relation thus produced will generate community of interests, and will multiply the motive for the maintenance of universal peace. Channels will be opened, through which information and knowledge will pass from people to people; civilization will be stimulated, morals elevated, taste cultivated, manners refined. The temples of superstition will be razed to the ground, the darkness of ignorance dispelled, national antipathies uprooted, and the population of the globe taught to regard themselves as denizens of one great commonwealth, and children of one common FATHER.

Such are the benefits which flow from the triple league of the Steam-engine with the Press, the Ship, and the Railway. These are the combined powers to which nations may securely tender unqualified allegiance. This is the true Holy Alliance, which will cause the sceptre to tremble in the hands of the despot, and the chains to fall from the limbs of the slave.

THE QUICKSILVER STEAMER.

One of the boldest enterprises among the projected improvements of the steam-engine, which has emerged from the condition of a mere experiment, is the vapour engine, as it is called, of Mr. Howard. The extent to which the economy of the combustible is professed to be carried by this contrivance is sufficiently startling to entitle it to attention; and as trips of some length have been already made by vessels propelled by engines on this principle, and a vessel is in preparation for the Atlantic voyage, we should hardly be justified in classing it among mere speculations, or in passing it over without particular notice.

Mr. Howard applies the furnace, not immediately, to the water, but to a pan of quicksilver. He proposes to maintain this at a temperature below its boiling point, but very much above the boiling point of water. On the surface of this hot quicksilver he injects the water, which is converted instantaneously into steam, containing much more heat than is sufficient to maintain it in the vaporous form.

This superheated steam is used to work the piston; and being subsequently condensed by means of a jet of fresh water, the mixture of warm water, produced by the steam and the water injected, is conducted through the cooling pipes, and subsequently used—partly to supply the water for vaporation, and partly to supply the water for injection. Thus, in this contrivance, as it now stands, not only the boiler, but the use of the sea-water is altogether dispensed with; the same distilled water constantly circulating through the cylinder and the condenser. It appears to have an advantage over Hall's condenser, inasmuch as it preserves the method of condensing by injection, which has, since a very early epoch in the history of the steam-engine, been found to be attended with considerable advantages over any method of condensation by cold surface. It is right however, to state, that the idea of supplying the water of injection by cooling the water drawn from the condenser, by passing it through pipes, has been patented by Mr. Symington.

The economy of fuel proposed to be attained by Mr. Howard's contrivance is so great, that, if it should prove successful, it must put every other form of marine engines altogether out of use. We regret that we have not had opportunities of immediate observation of the experimental results of this engine; but they have inspired confidence into several persons competent to judge of them, who have not hesitated to embark capital in their realization and improvement. The question must now soon be decided, as the steam vessel *Columbus*, having her machinery constructed on this principle, is understood to be in a forward state of preparation at Liverpool for the Atlantic voyage.

As the British and American Steam Navigation Company proposes to introduce the method of condensation by surface into the British Queen, we shall have all the different expedients, which afford an immediate prospect of material improvement in the economy of fuel and the preservations of the machinery, speedily

in operation on the Atlantic, and the result of experience will afford grounds for judging the respective merits, more conclusive than any theoretical skill can pretend to offer.—*Monthly Chronicle*.

THE WORTH OF HOURS.

BY R. N. MILNES.

"Believe not that your inner eye
Can ever in just measure try
The worth of Hours as they go by:

"For every man's weak self, alas!
Makes him to see them, while they pass
As through a dim or tinted glass:

"But if in earnest care you would
Mete out to each its part of good,
Trust rather to your after-mood.

"Those surely are not fairly spent,
That leave your spirit bowed and bent
In sad unrest and ill-content:

"And more,—though, free from seeming harm,
You rest from toil of mind or arm,
Or slow retire from Pleasure's charm,—

"If then a painful sense comes on
Of something wholly lost and gone,
Vainly enjoyed, or vainly done,—

"Of something from your being's chain
Broke off, nor to be linked again
By all mere Memory can retain,—

"Upon your heart this truth may rise,—
Nothing that altogether dies
Suffices Man's just destinies.

"So should we live, that every Hour
May die as dies the natural flower,—
A self-reviving thing of power;

"That every Thought and every Deed
May hold within itself the seed
Of future good and future need;

"Esteeming Sorrow, whose employ
Is to develope, not destroy,
Far better than a barren Joy."

From Travels in the Brazils, etc.

SLAVE-MARKET IN THE BRAZILS.

The place where the great slave-mart is held (in Rio de Janeiro) is a long winding street, called Vallongo, which runs from the sea at the northern extremity of the city. Almost every house in this place is a large ware-room, where the slaves are deposited, and customers go to purchase. Those ware-rooms stand at each side of the street; and the poor creatures are exposed for sale like any other commodity. When a customer comes in, they are turned up before him: such as he wishes are handled by the purchaser in different parts, exactly as I have seen butchers feeling a calf; and the whole examination is the mere animal capability, without the remotest inquiry as to the moral quality, which a man no more thinks of than if he was buying a dog or a mule. I have frequently seen Brazilian ladies at these sales. They go dressed, sit down, handle and examine their purchases, and bring them away with the most perfect indifference. I sometimes saw groups of well-dressed females here, shopping for slaves, exactly as I have seen English ladies amusing themselves at our bazaars.

There was no circumstance which struck me with more melancholy reflections than this market, which I felt a kind of morbid curiosity in seeing, as a man looks at objects which excite his strongest interests while they shock his best feelings. The ware-rooms are spacious apartments, where sometimes three or four hundred slaves, of all ages and both sexes, are exhibited together. Round the room are benches, on which the elder generally sit, and the middle is occupied by the younger, particularly females, who squat on the ground, stowed close together, with their hands and chins resting on their knees. The only covering is a small girdle of cross-barred cotton tied round the waist.

The first time I passed through the street, I stood at the bars of the window looking through, when a cigano came and pressed me to enter. I was particularly attracted by a group of children, one of whom, a young girl, had something very pensive and engaging in her countenance. The cigano, observing me look at her, whipped her up with a long rod, and bade her with a rough voice come forward. It was quite affecting to see the poor timid shrinking child standing before me, in a state the most helpless and forlorn that ever a being endued, like myself, with a reasonable mind and an immortal soul, could be reduced to. Some of these girls have remarkably sweet and engaging countenances. Notwithstanding their dusky hue, they look so modest, gentle, and sensible, that you could not for a moment hesitate to acknowledge that they are endued with a like feeling and a common nature with your own daughters. The seller was about to put the child into all the attitudes, and display her person in the same way as he

would a man; but I declined the exhibition, and she shrunk timidly back to her place, seeming glad to hide herself in the group that surrounded her.

The men were generally less interesting objects than the women; their countenances and hues were very varied, according to the part of the African coast from which they came; some were soot-black, having a certain ferocity of aspect that indicated strong and fierce passions, like men who were darkly brooding over some deep-felt wrongs, and meditating revenge. When any one was ordered, he came forward with a sullen indifference, threw his arms over his head, stamped with his feet, shouted to shew the soundness of his lungs, ran up and down the room, and was treated exactly like a horse put through his paces at a repository; and when done, he was whipped to his stall.

The heads of the slaves, both male and female, were generally half-shaved, the hair being left only on the fore part. A few of the females had cotton handkerchiefs tied round their heads, which, with some little ornaments of native seeds and shells, gave them a very engaging appearance. A number, particularly the males, were affected with eruptions of a white scurf, which had a loathsome appearance, like a leprosy. It was considered, however, a wholesome effort of nature to throw off the effects of the salt provisions used during the voyage; and, in fact it resembled exactly a saline concretion.

Among the objects that attracted my attention in this place were some young boys, who seemed to have formed a society together. I observed several times, in passing by, that the same little group was collected near a barred window; they seemed very fond of each other, and their kindly feelings were never interrupted by peevishness; indeed, the temperament of a negro child is generally so sound, that he is not affected by those little morbid sensations which are the frequent cause of crossness and ill temper in our children. I do not remember that I ever saw a young black fretful or out of humour; certainly never displaying those ferocious fits of petty passion in which the superior nature of white infants indulges. I sometimes brought cakes and fruit in my pocket, and handed them in to the group. It was quite delightful to observe the generous and disinterested manner in which they distributed them. There was no scrambling with one another; no selfish reservation to themselves. The child to whom I happened to give them took them so gently, looked so thankfully, and distributed them so generously, that I could not help thinking that God had compensated their dusky hue by a more than usual human portion of amiable qualities.

A great number of those who arrive at Rio are sent up the country, and we every day met cofilas, such as Mungo Park describes in Africa, winding through the woods, as they travelled from place to place in the interior. They formed long processions, following one another in a file; the slave-merchant, distinguished by his large felt hat and puncho, bringing up the rear on a mule, with a long lash in his hand. It was another subject of pity to see groups of these poor creatures cowering together at night in the open ranchos, drenched with cold rain, in a climate so much more frigid than their own.

NECESSITY OF CONTROLLING THE PASSIONS.

A proud, irritable, discontented and quarrelsome person, can never be happy. He has thrown a tempestuous atmosphere around himself, and must forever move in the region of storms. He has employed sure means to embitter life, whatever may be his external circumstances. He has been the architect of his temper, and misery must be the result of his labour. But a person who has formed his temper and dispositions of mind after a right model—who is humble, meek, cheerful and contented, can commonly find a convenient shelter when overtaken by the storms of life. It should, therefore, be our early lesson to subject the passions, appetites and desires, to the control and guidance of reason. The first are the gales to impel us in the voyage of life, but the last ought still to sit at the helm and direct our course. The stream, when it slowly descends with a hoarse murmur from the mountain and ripples through the plain, adorns and enriches the scene; but when it rushes down in a roaring and impetuous torrent, overflowing its banks, it carries devastation and ruin along with it: so, when the passions, appetites and desires, are kept under due restraint, they are a useful and felicitating part of our nature; but when they are allowed to rage with unbridled fury, they commit fearful ravages on the character which they were fitted to adorn and exalt. We must watch over the first movements of the heart, and not indulge, with secret complacency, in imaginations which we would be ashamed to avow. If we wish the stream of life to be pure, it ought to be our aim to preserve the fountain whence it flows unpolluted, "Keep thy heart with all diligence; for out of it are the issues of life."

EXCERPTS.—"If religion," says Law, in his *Serious Call to a Holy Life*, "commands us to live wholly unto God and do all to his glory, it is because every other way is living wholly against ourselves, and will end in our shame and confusion of face."

Mankind too frequently wed opinions, and, having taken them "for better or worse," conceive it a point of honour to maintain them ever after; though Reason and Truth sue for a divorce.