

EDENTON, NOVEMBER 31, 1869.

## 20 Dollars Reward.

**R**UN away from the subscriber upwards of a year past, a likely Negro Fellow, named FRANK, commonly known by the name of FRANK MUTTON. He is about 5 feet 9 or 10 inches high, thick set, and pretty black, has some of his fore-teeth out, and somewhat bull-headed, has a smiling artful countenance when spoken to, and is a very desperate blood-thirsty fellow. He is, I am informed, lurking about in the neighborhood of Edenton, and frequently in town, braving the power of white men to take him. I will give the above reward to any person that will confine him in Perquimans jail so that I get him again.

*Elizabeth P. Dickinson.*

Edenton, Oct. 12, 1869.      1189

### THE ARTS.

An examination of the notion entertained by seamen, that the weakness or looseness of a vessel's frame makes her sail faster. By Capt. Malcolm Cowan.

Capt. Cowan observes, that the generality of seamen have an idea that the strength of ships is an impediment to their sailing, which makes them give too ready an assent to any objection that may be made to the improvements in naval architecture, which have been contrived for strengthening ships, and consequently adding to their safety; not considering how many are interested in the continuation of ancient errors and absurdities, and enriched by the existing abuses in the construction and equipment of ships. This is a subject in which seamen are more particularly interested, from being liable to be the greatest sufferers by any mistake relative to it. And which therefore demands their peculiar attention.

Capt. Cowan supposes the notion to be erroneous, that the part of ships immersed in the water can twist or bend in any way to effect their sailing, as they are too firmly bound by the decks and keels, to admit of any sufficient motion in that way for this effect; he however admits the possibility of this twisting and bending, in order to investigate the consequences of it on the sailing, and to show that they would be nearly the reverse of what is commonly supposed.

If a vessel should bend upwards or downwards, she would make more resistance to the water, by opposing a greater surface to it transversely; a hollow or concave keel is well known to be one of the greatest impediments to a vessel's sailing; and if the vessel on the contrary is sunk lower in the middle, it is evident the transverse section of her immersed part, must be proportionally increased in depth, along with her resistance to forward motion which depends on it.

If the bend or twist should be sideways, the transverse section would be increased in depth, and the resistance become proportionally greater; besides this, it would make resistance diagonally to the proper course, and would operate to make the vessel steer in the direction of the bend at the head. Reasons Capt. Cowan justly supposes plausible, but they are rendered more convincing by drawings, which he has made, and which as seamen suppose they may have seen in the inspection of the rough sketch of the idea (to any but the obstinate) that such twisting can be an

...tributes the effect which... sailing of vessels by cutting... (which is practised... riggers) entirely to... works, and there... the masts and sails... the rigging, and it is... and tackles, when in chase, in

order to give the masts as much play or motion as possible; in large, and particularly in lofty ships, the rolling motion causes the sides to bend over somewhat from their natural position, and this causes a material alteration in the position of the masts and sails, besides giving them more play, as the length of the masts multiplies the alteration of place at the sails, in proportion to their distance from the centre of motion.

By cutting through a vessel's gunnels the upper works may be made very loose; but as the deck must keep every part beneath it under water from bending or twisting so as to affect the sailing, it must be entirely from the effect which the looseness of the upper works has on the masts and sails, that any alteration in sailing can arise.

Capt. Cowan observes in concluding, that ships sometimes sail faster when new and firm, than when they get old and weak; that the sailing trim of a vessel must depend on the draught of water, the stowage of the hold, and the position and trim of the masts, sails and rigging, so no improvement in the sailing of a ship can be produced by her bending or twisting beneath the surface of the water however weak or loose she may be.

**OBSERVATIONS.**—It is easy to demonstrate that when any part of the frame of a ship loosens, so as to be capable of motion in the neighboring parts. From that moment the vessel begins to decay; and it is all a matter of chance whether her destruction should be gradual, by a progressive loosening & wearing of the whole frame, or whether the partial motion of a single timber will not start a plank, and send her and her crew and cargo at once to the bottom. Capt. Cowan has heretofore done a singular service to seamen in pointing out their errors on the subject, by showing, that it is the part of the vessel above water which affects the sailing by its action on the masts and yards, and not the alteration of the immersed part, as was falsely imagined.

The effect which the giving play or motion to the masts, has on the sailing, we are convinced, arises entirely from the greater springing or elasticity which they are capable of exercising. It has been long since proved, that the spring added to wheel carriages enable a given force to produce a greater effect in moving them forward, and prevent impediments on the road from diminishing their velocity of motion in a very great degree if not entirely.—The waves on the sea may be considered as forming obstructions to the velocity of a ship, in a similar manner to that which obstacles on a road do to the motion of a carriage; and it may easily be conceived, that the introduction of the principle of the spring, in making the motion of the ship more uniform, must be equally beneficial.

But surely the dangerous expedient of damaging the vessel, by the process of loosening it, as it is called, cannot be absolutely necessary to give this spring; on granting that aid somewhat in this way, yet certainly many better methods can be devised, and certainly none worse, and it is evidently a disgrace to the ingenuity of seamen not to be able to contrive a better expedient than the very barbarous one which they have adopted; Springs have been added to the blocks by the sheers and halyards, in several American vessels, and have been found of great utility; there can be no doubt but that the slings of the yards might be also attached to springs, and that the effect would not only be beneficial to the sailing of the ship, but also in preventing the sails from being rent by sudden squalls. The wind varies likewise, from the intensity of its action on the sail for momentary intervals at other times, as well as squalls; and in the action of the ship in pitching and rolling, tends also to make the operation of the wind on the sail very variable, increasing it as the mast rolls from it.—Springs at the sails and at the halyard blocks would equalize this action of the wind more effectually than cutting the gunnels or loosening the rigging, so as to endanger the masts being brought by the board. All unprejudiced persons will at

least grant that this, and every other safe expedient should be tried for the purpose, before the very dangerous methods above mentioned should be attempted.

It has been proved by experienced philosophers, that a pyramidal or conical body of wood, forced into the water, will react in the same manner as a spring; this principle may also be adopted to give the action of a spring to the masts, without injuring the ship, for its hull may be so shaped, that both in rolling and pitching, the resistance may gradually increase, as it inclines from the vertical position, and that the reaction may be in the same proportion; the wedge shape which many ships have at the head and stern, is well calculated for this purpose, and if the sides were made so as to project as they rose, instead of inclining inwards, or tumbling home, as it is called, the vessel would have the best form for this purpose, and one which would be very good in other respects also. Much depends upon ballasting the ship, in making the operation of its immersed part, have the operation of a spring on the masts; for if the ballast is too low, this effect will be injured by its rendering, as it were, the spring too stiff; and if on the contrary, the centre of gravity is placed too high, the spring will be too weak, besides risking the upsetting of the ship.

The interest which Captain Cowan remarks, many take in the continuance of ancient errors in the construction and equipment of ships, is a melancholy consideration, when the fate of the nation depends so much on its naval superiority.

As yet the seas are our own; but if the same system, which has ruined the continent, should ever be adopted in our naval departments, and if all improvements were to be rejected there while our inveterate enemies eagerly and diligently encourage it in their service, no gift of prophecy is required to foretell what must in time be the event. No idea can be more false, than from the construction and management of ships are brought to the full perfection of which they are capable. We laugh at the Chinese, for holding this opinion with regard to their junks, but in us it is much more ridiculous, for a wise policy prevents foreign commerce to that nation, to whom it is worth nothing, or worse, though to us it is every thing. Art is so far from being exhausted on this subject, that it is an exaggeration to say, that it is yet within its limits to diminish the dangers of the sea to navigators fully one half of what they are at present.

WASHINGTON-CITY, Nov. 15.

All negotiation with the British government at this place is suspended by one of those events which we should call extraordinary, did not their frequent occurrence for a few years past make them familiar to us. Without any redress for the accumulated wrongs heaped upon us, or for the bitter indignity committed by the outrage on the Chesapeake, a new and wanton insult has been offered directly to our government by a minister, whom the unsuspecting magnanimity of the nation trusted would in truth have turned out to be a messenger of peace. Sent, expressly as we have been told, to heal misunderstandings, occasioned by the acknowledged mistakes, if not injuries, of his own government, he has permitted himself, in violation of the plainest dictates of reason, and the clearest precepts of the law of nations, to offer the grossest insult, in the power of ingenuity to devise, to the American nation, by insinuating a doubt of the veracity of its government.

Sensible that our countrymen are no ways deficient in spirit, and that foreign injury and insult, so far from possessing the power to awe, will only serve to excite a just resentment, we shall abstain from ministering fuel to a flame which, we risk nothing in anticipating, will blaze from one end of the nation to the other. It is indeed most manifest that since the inexplicable disavowal of the arrangement entered into with Mr. Erskine, it has required every effort of moderation and wisdom to keep down the tone of the public