

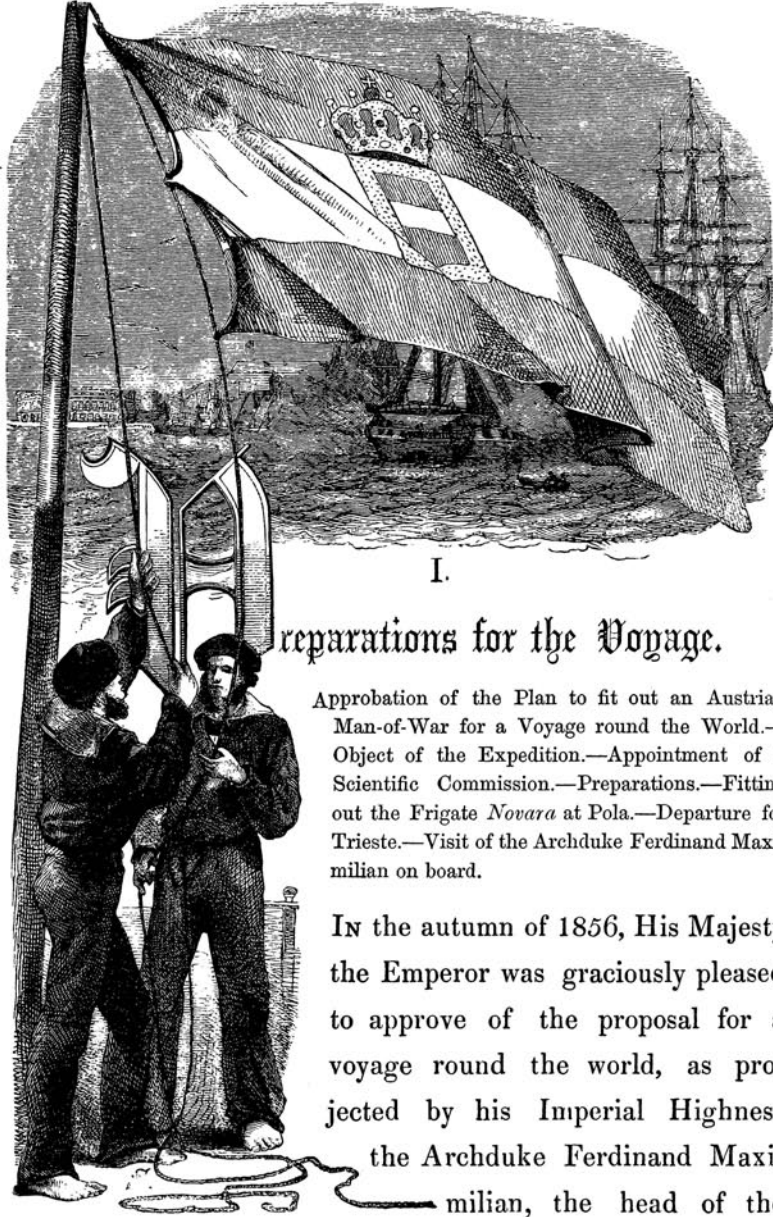
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978-1-108-05975-6 - Narrative of the Circumnavigation of the Globe by the Austrian Frigate *Novara*:
Undertaken by Order of the Imperial Government, in the Years 1857, 1858, & 1859: Volume 1

Karl Von Scherzer

Excerpt

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I.

Preparations for the Voyage.

Approbation of the Plan to fit out an Austrian Man-of-War for a Voyage round the World.—Object of the Expedition.—Appointment of a Scientific Commission.—Preparations.—Fitting out the Frigate *Novara* at Pola.—Departure for Trieste.—Visit of the Archduke Ferdinand Maximilian on board.

In the autumn of 1856, His Majesty the Emperor was graciously pleased to approve of the proposal for a voyage round the world, as projected by his Imperial Highness the Archduke Ferdinand Maximilian, the head of the

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Voyage of the Novara.

Austrian navy, and to commission the sailing frigate *Novara* for that purpose, a vessel qualified to meet every requisite condition.

The chief object of the Expedition—a circumstance which must not be lost sight of—was to afford the officers and cadets of the ship an opportunity of acquiring that practical acquaintance with naval affairs which, added to the theoretical knowledge previously attained, would render them thoroughly familiar with nautical routine, and thus materially contribute to the further development of the Austrian navy.

This branch of the public service, placed since 1848 on an entirely new basis, has with difficulty worked its way through all those embarrassing circumstances inseparable from the organization of a new system; but the honest zeal and energy of the board appointed, supported by favour from the highest quarters, have succeeded in introducing many improvements, and in increasing by degrees the numerical strength of the men, thereby laying a secure foundation for the rising naval force, the importance of which, at this moment, every reflecting patriot will acknowledge.

The intended Expedition offered, besides the advantages for the service, another not less important for the State, namely, the recognition of the Austrian flag in remote quarters of the globe, to which it had never hitherto penetrated; and by thus opening new channels for the outlet of our natural products and manufactured goods, to promote the industrial, commercial, and maritime interests of the empire.

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[More information](#)*General Objects of the Expedition.*

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In order to satisfy the scientific requirements of the age, the illustrious head of the navy issued orders, that the officers on board should in every way assist in the researches to be made, connected with navigation and geography; and was, moreover, pleased to invite the Imperial Academy of Sciences to nominate two members, he himself naming a third, to accompany the Expedition for the purpose of observing and investigating phenomena pertaining to the different branches of physical science, as well as collecting rare specimens and interesting objects of natural history. To this commission were ultimately attached a botanist, a practical zoologist, an artist, and a flower-gardener.

The Academy had, for the guidance of these gentlemen, drawn up instructions which, with a multitude of other papers containing useful hints and interesting queries, received from the Imp. Geographical, Geological, and Medical Societies, as well as from numerous foreign and native scientific men, formed a most valuable collection of materials for the purposes of the Expedition.*

Foremost amongst these *savans* stood Alexander von Humboldt, that illustrious man, who up to the last moment of his existence was alive with youthful enthusiasm for every scientific enterprise. In England great interest in the success of the Expedition was evinced by Sir Roderic Murchison, Sir W.

* Of these instructions, "The physical and geognostical remarks," with which the Nestor of natural science honoured the voyagers of the *Novara*, being of a more general interest, are published at the end of this volume, together with the facsimile of an autograph letter of Baron von Humboldt to the commander of the Expedition.

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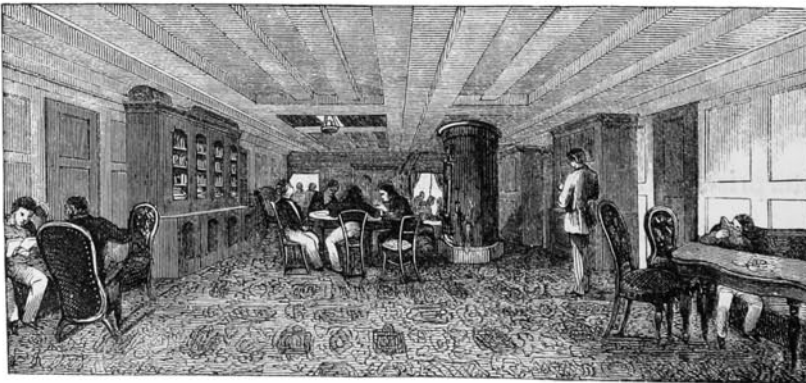
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Voyage of the Novara.

Hooker, Sir Charles Lyell, General Sabine, Admiral Smyth, Admiral Fitzroy, Professor Robert Owen, Professor Philips, Professor Bell, Professor W. A. Ramsay, Professor Goodsir, of Edinburgh, W. J. Hamilton, Esq., Charles Darwin, Esq., L. Horner, Esq., James Yates, Esq., B. Davis, Esq., &c., &c. From the United States of North America, we received most valuable communications from Commander M. F. Maury, National Observatory, Washington, D.C.—Captain Rodgers, and others.

Letters of introduction were received from Germany, and particularly from England, to influential parties and societies in a variety of places abroad, amongst which were many warm and friendly recommendations from the English Government and Admiralty, as well as the Directors of the then East India Company, to various administrative authorities in the British Colonies.

The frigate *Novara* was laid up in the arsenal of Pola, where all requisite steps were taken to complete her outfit, and



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Advantages of using Distilled Sea-water. 5

prepare her thoroughly for the voyage. The ventilation of the lower deck was improved, and the number of cabins increased in proportion to the number of individuals for whom accommodation was to be provided.

The gun-room was, by command of the Archduke, converted into a reading-room, and provided with a well-selected library as well as with all the charts and maps necessary for the information of the officers, who here made their calculations and executed their drawings.

The store-rooms for the sails and tackle were enlarged, so as to hold a double quantity.

A distilling apparatus, the same as patented by M. Rocher, of Nantes, was fixed on the gun deck, and being placed in connection with the ship's coppers, it was found that, during the few hours each day that the latter were used for cooking, enough sea-water was distilled to supply the entire ship's company with excellent water to drink. This distilled water, after having been kept in iron tanks for a month, was found pleasant to the taste, and agreed very well with the health. The excellent health enjoyed by all the crew throughout the voyage must, in a great measure, be ascribed to the circumstance, that scarcely any other but this distilled sea-water was used, so that the men were enabled entirely to forego drinking river or spring-water, which in the tropics are frequently found injurious.

The use of such an apparatus permits a great diminution in the store of water usually carried by a vessel. The space

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gained by this diminished bulk of water, enabled us to take on board a larger cargo of coal and provisions, such as preserved beef and compressed vegetables. The sailors were not, however, particularly fond of the preserved beef, because in cooking it loses a great part of its flavour (though the broth is strong and good); nor does it seem as an article of diet to have had a particularly beneficial influence on the health, for the sanitary condition of the crew was equally satisfactory, and the number of scorbutic patients not materially increased when, towards the end of the voyage, the fresh stores were exhausted, and only salt and pickled rations were issued.

Compressed dried vegetables were of great benefit to the health of our men, and cannot be sufficiently recommended. The so-called *mélange d'équipage* of Chollet, as well as *sauer kraut*, potatoes, and other vegetables, have an excellent taste, improve the soups when mixed with them, and are easily preserved, provided they be protected from the effect of damp. Hence it might be advisable to keep them enclosed in well-soldered tin boxes. The price of these vegetables is so moderate, that it is surprising they are not more generally employed.

The long-continued satisfactory state of health of the crew must also partly be sought for in the constant use of shower-baths. For this purpose, apertures, three-quarters of an inch in diameter, were bored in the planks of both the deck and fore-castle, under which a perforated disc could be screwed, and

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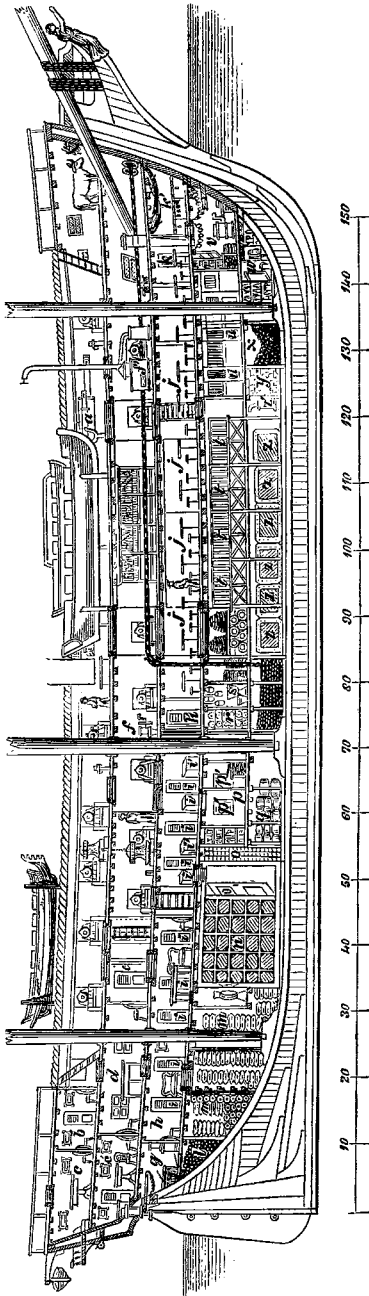
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VERTICAL SECTION OF THE FRIGATE "NOVARA."



- a.* Spare Spars.
- b.* Captain's Cabin.
- c.* Commodore's Apartment.
- c'* Captain's Apartment.
- d.* Gun-room (also used as Reading-room.)
- e.* Cabins of Naturalists.
- f.* Pumps.
- f'* Kitchen, with Distilling Apparatus.
- g.* Side-board & Lockers of Officers.
- h.* Officers' Mess or Ward-room.
- h'* Commodore's Stores.
- i.i.i.* Officers' Cabins.
- iii'* " Lockers.
- j.* Half-deck (for Crew).
- k.* Sergeants' Cabins.
- k'* " Sick bay."
- l.* Shot-hold.
- m.* Bread-lockers.
- n.* Powder Magazine.
- o.* Preserve fresh provisions in tins.
- p.* Pantry.
- p'* Store-room for Rice, Cocoa, and Dried Vegetables.
- q.* Spirit Room.
- r.* Salted Provisions.
- s.* Buckets, Hoystones, &c.
- t.* Sail-room.
- u.* Tool Room, &c.
- v.* Boatswain's Cabin.
- w.* Painters' Stores.
- x.* Coal-cellar.
- y.* Tins of fresh provisions for the crew
- z.* Iron Water-tanks.
- z'* Tank for the Distilling Apparatus (*f'*)

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[More information](#)*Special Arrangements and Dimensions.* 7

above which a pail of water was placed. By these simple means every one was enabled to enjoy the luxury of a bath; when, however, the desire for that refreshment became general, so that the arrangement above-mentioned was insufficient, a hand fire-engine was made use of, so as to accommodate as many at once as might present themselves—a process which found great favour with the jolly tars, as affording abundant opportunities for fun and merriment.

The frigate *Novara* had been placed on the stocks in the arsenal of Venice in the month of February, 1845, and was launched in April, 1850. She was pierced for 42 guns, but during the voyage carried only thirty 30-pounders,* and four of smaller calibre.

The principal dimensions of the frigate (Vienna measurement) are:—

Length between perpendiculars	165	feet	5½	inches.†
„ of water line	156	„	5	„
Greatest breadth	44	„	11½	„
„ „ on water line	43	„	2	„
Depth of hold	19	„	¾	„
Draught of water aft	18	„	9	„
„ „ fore	17	„	5¾	„

The superficial area of the ship, or the load-water line, amounted to 5685·35 square feet; quantity of water displaced 2107 Austrian, or 2630 English tons. The superficial area of the principal sails amounted to 18,291 square feet.

* The 30-pounder marine guns answer very nearly to the English 32-pounders.

† $96 \frac{133}{1000}$ Austrian feet = 100 English.

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The frigate proved herself to be an excellent sailer, as, of the various vessels which, throughout the voyage, sailed in company with us, only three clippers outstripped her

The question may here be asked, why, in the present state of navigation, a sailing-vessel was preferred to a steamer for this voyage? The principal consideration which decided this selection was the greater disposable area which a sailing-vessel offers in comparison with a steamer of the same dimensions, in which coal and machinery occupy so large a space. On the present occasion, it will be perceived that what was specially wanted was room for as great a number of officers, cadets, and men as possible, who were, as has been stated, to make this voyage for improvement in nautical affairs. Plenty of space was also required for the numerous instruments and bulky collections of objects of natural history; while in most parts of the ocean which we were to traverse, the winds blow so regularly, that, with very rare exceptions, sails form the best motive power. The expense of fuel requisite for a steamer, and the trouble of replacing it during the voyage, are thus saved; whilst, finally, the space occupied by the men employed in the management of the machinery, and that required for the stowage of special stores, would be withdrawn from more important objects.

After the frigate had been properly fitted up in the arsenal of Pola, she sailed on the 15th March, 1857, for Trieste, where she cast anchor on the 17th in the Bay of Muggia. H.I.M.'s corvette *Caroline*, likewise fitted out at Pola for a voyage