

**THE WOODRUFF SCIENTIFIC EXPEDITION STEAMER ONTARIO.**

We present herewith an engraving of the steamship Ontario, in which, we are informed, the Woodruff Scientific Expedition is to embark during October next, on a voyage around the world. The Ontario is 390 feet long, 46 feet wide, and 40 feet deep; and is to be provided with all the accessories necessary to secure the comfort of her passengers, and to adapt her for the especial objects in view. Saloons, it is stated, are to be arranged for lecture rooms, etc., a library is to be furnished, improved ventilating apparatus will maintain a constant supply of fresh air between decks, and scientific instruments will be supplied for the investigation of all natural products and phenomena that may be deemed desirable. The projectors of the expedition, Messrs Woodruff and Macauley, also state that the ship will be navigated by Commander J. W. Philip, U.S.N, aided by naval officers and a crew of picked seamen.

As we have already had occasion to state, the object of this expedition is to visit points of general and special interest on a route around the globe, to study the arts, archaeology, and present condition of the better known countries, and the geology, geography, fauna and flora, as well as the history and character of the people of those less known, and to make collections in the various departments of the science. The scientific work is, we are further informed, to be under the supervision of Professor Burt G. Wilder, Cornell University, aided by other scientific gentlemen now belonging to various colleges. From the itinerary in the prospectus, we learn that the route is to be along the Atlantic coast of North and South America, stopping at the West Indies and other important points, and reaching Magellan's Straits in December. Thence the journey will extend to Valparaiso, and from thence the course will lie to the islands of the Pacific—Japan, Shanghai, and Nankin. During this portion of the voyage, and while the ship is visiting China and Japan, a portion of the passengers are to explore the Islands of Formosa. Hong Kong, Canton, Manilla, Borneo, Java, and Calcutta will be visited, and thence the expedition will proceed in succession to Ceylon, Bombay, Babylon and Nineveh, Egypt, the Holy Land, Greece, Italy, and Spain. At all comparatively unknown stopping places, it is proposed to organize exploration parties, and facilities are to be afforded for visiting inland cities in civilized countries. The vessel is to leave Plymouth, England, in 1879, and to return thence to New York via the Azores Islands. The total cost of the trip is to be \$2,500. Further particulars as to terms of payment, etc., may be obtained by addressing Gen. Daniel Macauley, St. Nicholas Hotel, New York city. See advertisement in another column.

**HOW TO PREVENT GRASSHOPPER RAIDS.**

Professor C. V. Riley, in his new book on the Rocky Mountain locust, gives a number of practical hints as to the best method of preventing incursions of the insects into States other than those now annually invaded. The various suggestions we have condensed into the following brief form:

1. Encourage game birds and native locust-feeding species.
2. Professor Thomas suggests that inducements be offered to the Indians to collect and destroy the eggs and young along the west side of the plains.
3. Some system is wanted for preventing the extensive prairie fires in the fall that are common in the country where the insect naturally breeds, and then subsequently firing the country after the young hatch, and before the new grass gets too rank.
4. Locusts are particularly fond of tansy, cocklebar, amarantus, and timothy—these might be sprinkled with Paris green water or powder. A strip of poisoned timothy around a wheat field might save it.
5. Irrigation is the best preventive; inundate the land and drown the young locusts out after hatching, or use kerosene in the ditches.
6. Hogs and poultry delight to feed on the young hoppers and will grow fat on them.
7. When, in the spring, the young locusts hatch out in threatening numbers, delay the planting of everything that cannot be protected by ditching until the very last moment. The idea is to let the locusts devour all they can find and then to let them starve before any crops grow for them to feed on.
8. Grain should be sown in "lands" or strips 50 to 100 feet wide, to permit of ditching between them, and those who have fall wheat up and doing well, where the eggs are thickly laid, should make ditches at intervals through the field, to facilitate the saving of the grain in the spring.
9. As the disastrous swarms which reach the southeastern country come from the extreme northwest, it is proposed that the number of United States signal stations be increased in that region. The movements of swarms might thus be daily recorded, and the farmers of the east and southeast be apprised of their probable coming for weeks in advance.
10. Professor Riley thinks that the army might "be utilized to destroy locusts instead of Indians. A few regiments," he says, "armed with no more deadly weapon than the common spade, sent out to sections of country that are suffering from locust ravages, might in a few weeks measurably rout the pigmean army, and materially assist the farmer in his ditching operations."

**Cleansing Fluid.**

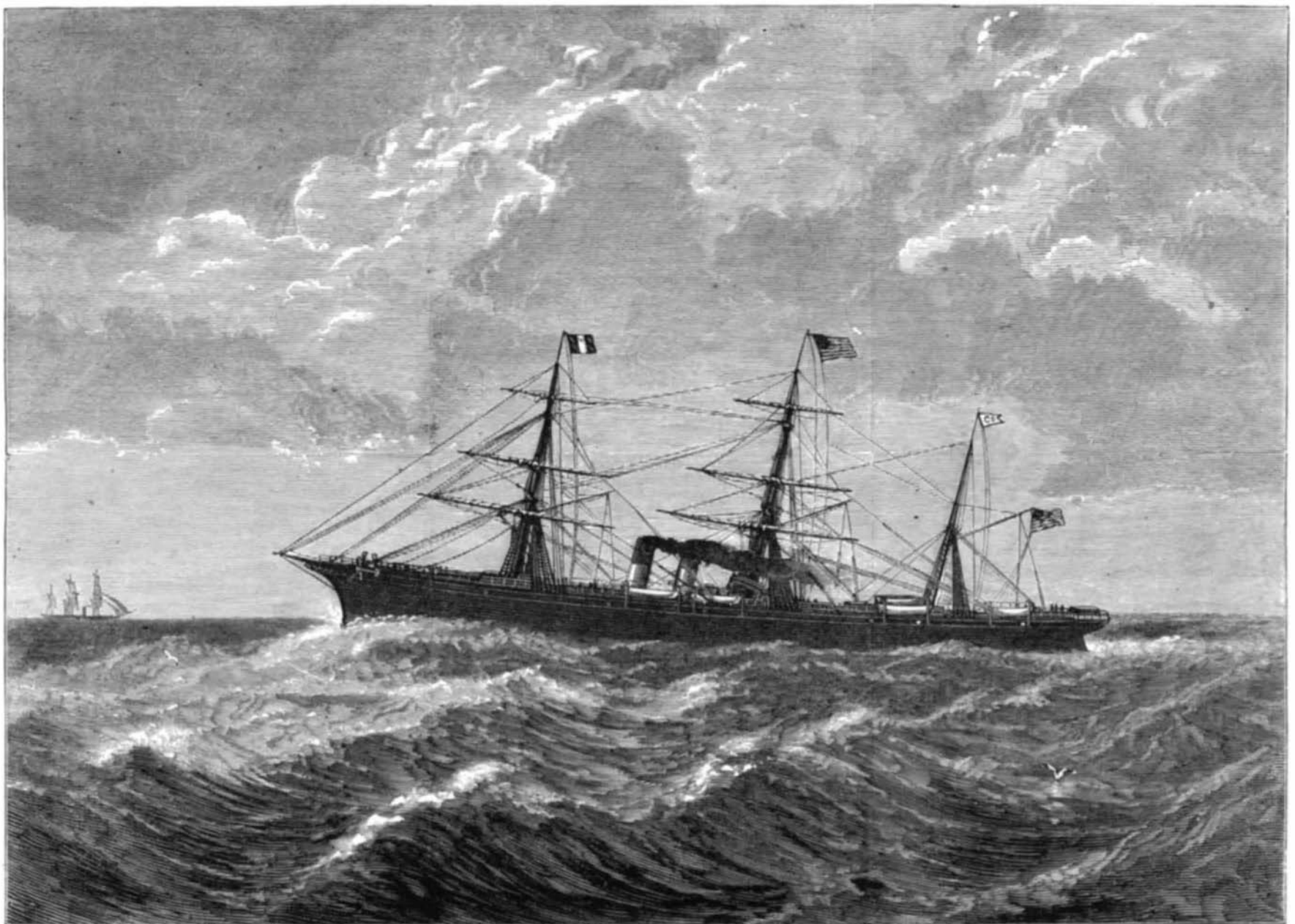
For washing alpaca, camel's hair, and other woolen goods, and for removing marks made on furniture, carpets, rugs, etc.: Four ounces ammonia, four ounces white Castile soap, two ounces alcohol, two ounces glycerin, two ounces ether. Cut the soap fine, dissolve in one quart water over the fire, add four quarts water. When nearly cold add the other ingredients. This will make nearly eight quarts and will cost about 75 cents. It must be put in a bottle and stoppered tight. It will keep good any length of time. To wash dress goods, take a pail of lukewarm water, and put in a teacupful of the fluid, shake around well in this, and then rinse in plenty of clean water; and iron on wrong side while damp. For washing grease from coat collars, etc., take a little of the fluid in a cup of water, apply with a clean rag, and wipe well with a second rag. It will make everything wooden look bright and fresh.—*Chicago Tribune.*

**The Formica Pennsylvanica.**

There is a general notion that only tropical countries are infested with ants that are capable of doing serious damage. This, it appears, is a mistake. There is a black "carpenter ant," whose name, *Formica Pennsylvanica*, indicates its residence, that is capable of effecting much destruction in woodwork. The Rev. Dr. McCook has seen a rafter which these ants penetrated to an extent of five or six feet of its length, completely honeycombing it. The rafter was in the roof of a porch. The attention of the Philadelphia Academy of Sciences was called to the matter, as it is evident that such penetration of wooden structures, and especially bridges, might cause their unexpected fall. Wooden bridges need at least as frequent and as thorough inspection as iron structures.

**CEMENT FOR LEATHER BELTING.**—Take common glue and American isinglass, equal parts; place them in a boiler and add water sufficient to just cover the whole. Let it soak ten hours, then bring the whole to a boiling heat, and add pure tannin until the whole becomes rosey or appears like the white of eggs. Apply it warm. Buff the grain off the leather where it is to be cemented; rub the joint surfaces solidly together, let it dry for a few hours, and it is ready for practical use; and if properly put together, it will not need riveting.

Put a tablespoonful of sulphur in the nest as soon as hens or turkeys are set. The heat of the fowls causes the fumes of the sulphur to penetrate every part of their bodies, every louse is killed, and, as all nits are hatched within ten days, when the mother leaves the nest with her brood, she is perfectly free from nits or lice.



THE WOODRUFF SCIENTIFIC EXPEDITION AROUND THE WORLD.—THE EXPEDITIONARY STEAMSHIP ONTARIO.