

THE FUTURE OF THE SUBMARINE.

(BY JULES VERNE.)

For some inexplicable reason, many people insist upon regarding me as the inventor, or the imaginer, of the submarine, and that, no doubt, is the reason of the flattering request made to me to give my views upon its future.

I find the task no easy one. To begin with, I am not in any way whatever the inventor of submarine navigation, and reference to the authorities will show that many years—fully 50, I should say, before I wrote about the Nautilus—the Italians were at work upon submarine war vessels, and other nations were busied with them, too. All that I did was to avail myself of the great privileges of the fiction writer, spring over every scientific difficulty with fancy's seven-leagued boots, and create on paper what other men were planning out in steel and other metals.

The future of the
submarine as I see

submarine as I regard it—and let me here disclaim all gift of prophecy—is to be wholly a war future. The Nautilus, as I have written of it, will never be, I think, an actual fact, and I do not think that under-sea ships will be built in future years to carry traffic across the ocean bed to America and Australia. Even if the air difficulty were successfully encountered (and I have my grave doubts as to the possibility of that) what would be gained by any such sub-ocean traffic, except freedom from sea-sickness? No submarine would ever cross the bed of the Atlantic faster than a ship upon the waves would traverse it, and surely freedom from that bugbear mal de mer is not a

that the mer is not a sufficient incentive for the creation of a Cunard line beneath the sea.

No Commercial Future.

I am an old man now, and working, as well as my deficient eyesight will allow me, upon my 102nd volume of boys' stories, and as I look back on the years which have passed since I first wrote the life story of the Nautilus, and of its owner, I see no progress in the submarine which makes me hope for its use as a commercial medium. It has been wonderfully improved, I grant you—miraculously improved almost—but the improvements have all tended to one point—its efficacy as a war weapon; and that will be its one use in the future, I believe. I even think that in the distant future the submarine may be the cause of bringing battle to a stoppage altogether, for fleets will become useless, and as other war material continues to improve war will become impossible.

As time goes on each nation will acquire a large and very rapid fleet of submarines. Each little vessel (I am inclined to think that in the future they will be smaller than they are to-day, and manned by one or two men only) will be

absolutely in control, and will be able with scientific accuracy to place torpedoes underneath the greatest vessels, and to blow those vessels up. I do not think that any apparatus will be found to counteract the intense rapidity

will be found to counteract the increase in rapidity and certainty of the submarine, and eventually, when every nation has its fleet of hundreds of these little vessels, what is to war with them? They may be able even to blow up huge tracts of country and retreat unseen, some day; who knows?

Of course, before these things can be improvements in the submarine will have to be manifold and almost as wonderfully ingenious as the beginnings of this greatest wonder of man's science, but these things will, I think, be possible.

I followed very carefully the experiments made lately during the French manoeuvres in the

Mediterranean and during the manoeuvres of the English fleet, and I was very much struck by the accuracy with which the submarines of both fleets managed to slip in, strike, and get away in safety.

Submarine War Vessels.

Imagine hundreds of these vessels with their deadly freight. Can you suggest that any means would counteract their deadly power? I do not think so. "The refraction of the water, the depths to which the submarine can sink, its freedom from all observation—all these things make it the deadliest of war inventions, and in future years, when I myself am under ground, these powers will be enhanced. I do not think that

powers will be enhanced. I do not think that apparatus will be found to render them more harmless. The sea is hard to pierce, and I can think of nothing, even upon paper, which will enable men on board the supermare vessels to trace the tracks of their deadly little foes beneath the waves.

But as a commercial item in the world's civilisation I do not think that submarines have any future. Air may be found for them, but, even

so, it will never be found plentifully enough to make it possible for a large number of passengers to travel for a length of time in comfort. Electricity for their propulsion may one day be gathered from the sea itself, but I have doubts of it, and even if these things were done the pressure of the sea at any depth would crush a submarine to fragments unless some hitherto unheard of metal were discovered which would withstand the pressure. Think of the size a trans-Atlantic submarine would have to be and think how slowly it must travel owing to the pressure of the waters around it, and tell me if you think a Majestic will ever be made to travel to New York upon the sea bottom.

I doubt it—doubt it very gravely, and, as I have said, I do not see that there is any need for submarine trans-oceanic vessels. But submarine war fleets are in the near future, and they

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**PERCENT WEDGE WHICH
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nations, owing to
their very deadliness.
Unfortunately, their
work will not be done
in my time. I am a
man of peace, and
should have loved to
see it.—**

—“Examiner,”

San Francisco.
