



Sabretache

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Schermuly Pistol Rocket Apparatus (SPRA) Line Throwing Pistol

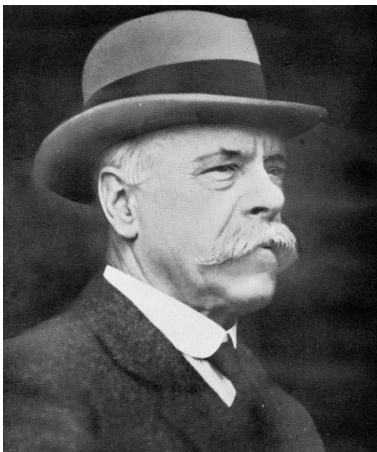
Member Kevin Roberts is a well known, local militaria expert, who operates the online selling website "The Canadian Soldier Militaria"

<https://thecanadiansoldier.com>

Recently, He posted on the Calgary Military Historical Society Facebook page, advertising a Schermuly pistol rocket for sale and gave a brief description.



I decided to further investigate this item and found a very interesting story on its origin and its inventor, **William Schermuly**



William Schermuly, seaman, inventor, reformer was born in 1857. As a seaman he had little formal education apart from 10 months on the training ship "Warspite" in 1871, he later served on various other ships.

Horrified at the needless loss of life on foundering ships within British waters, he resolved to do something about it. To do this he had to invent the means and reform the thinking that put cost above seaman's lives.

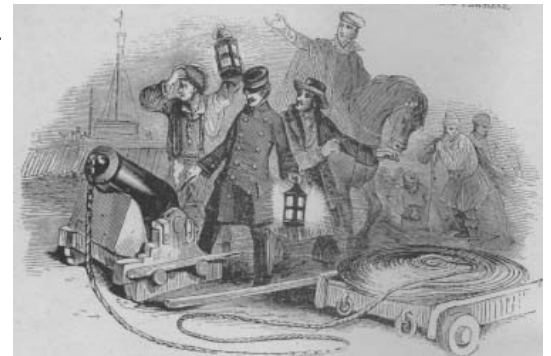
At this time there was little help available to the crews of stricken vessels, often lifeboat crews and coast guard rescue parties would see tragic loss of life often within a few yards of the shore and safety.

Some "devices" were available, such as this [contrivance for drowning persons](#)", basically a cannonball with a rope attached: but very often prevailing conditions limited their effectiveness. Another of these was to fire a rocket from

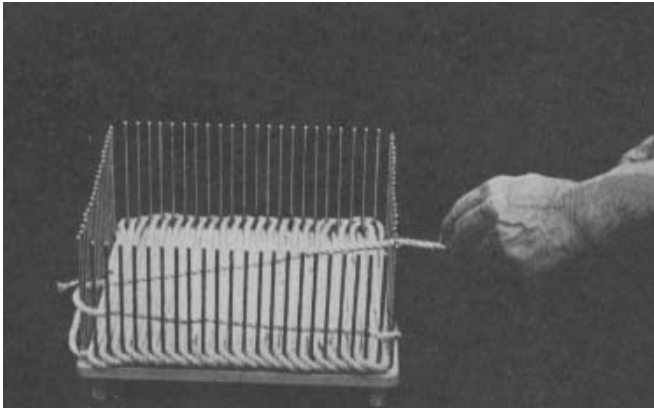
shore to ship; this is not easy as the ship is pitching up and down and represents a small target when seen from the shore, ie. easy to miss.

Schermuly set about the task of inventing an idiot-proof rocket system that a seaman could use in the worst possible storm conditions from a wildly pitching boat to fire a line accurately to the shore.

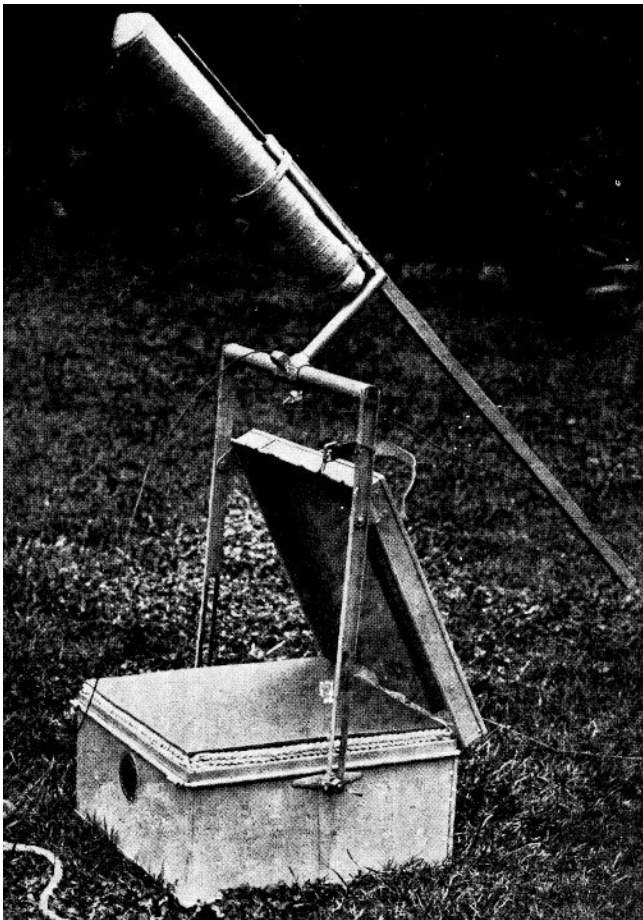
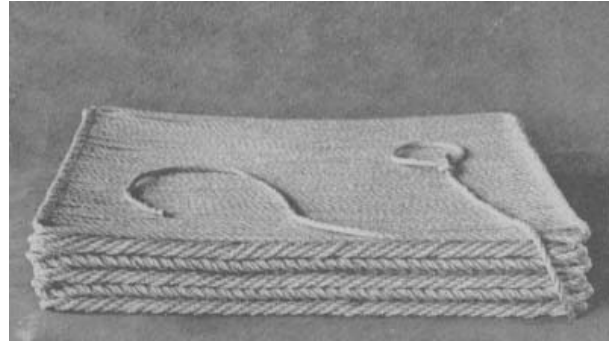
Schermuly also devised a better way of coiling the line to prevent tangles, this is known as "flaking." This left the line making a compact mat. This technique allows 3/4 mile of 1/2 inch circumference line to be stored in a box 20in by 20in by 12in.



Flaking system



Here is seen what he called a "selvedge edge", the whole line making a compact mat



A bridge mounted, example seen here is fitted to the "Endurance" which was the vessel used by Sir Ernest Shackleton Antarctic expedition



The original Schermuly Rocket Line Throwing Device. This would have been the kind that the Canadian army used in 1916

The Admiralty and ship owners at first, were for the most part uninterested in his invention, due to cost. Some far sighted shipping lines saw the wisdom and life saving potential of his invention, these include the Royal Mail Steam Packet, being the first in 1912, followed by the Union Castle and P & O Line. After the Rohilla was lost off the Yorkshire coast, having struck a mine in route to Belgium to pick up wounded soldiers; her crew and compliment of nurses and doctors drowning, the Admiralty did place an order for Schermuly rockets for troop and hospital ships. A supply of Schermuly rockets had also being carried on the "Terra Nova" which was Scot's ship on his exploration of the Antarctic, being freely donated by Schermuly.

During the Great War, the **Canadian Army** even began using them to throw telephone lines from trench to trench to avoid exposing troops to enemy fire. There are also stories of attaching a grappling hook of sorts to it and firing it over barbed wire so that it could be more easily pulled away.

Editor's note; I'm sceptical about pulling barbwire down. I think it would take a lot of force to pull barbwire down and it is only 1/2" line.

The Next Generation

Even though more ship owners warmed to his ideas, Schermuly still was not happy with his own product. Seeking a device that could literally be "fired by a child" small, light, easily aimed, accurate, long shelf life, waterproof, or as well as could be, safe and simple to use....**In 1920, William Schermuly along with his son, Capt. Conrad D. Schermuly, D.C.M., invented the S.P.R.A., the Schermuly Rocket Pistol Apparatus.**

What he came up with was rocket fired from a small hand held pistol.

The new apparatus would utilize the quick-firing, weather-proof projectile less effected by wind, as well as the far-traveling, easy-to-see, virtually recoilless rocket that wouldn't snap the lifelines. But how to achieve all this? Schermuly selected a flare pistol sized firing device for its size, added a long barrel on it, and used the gases of a pistol-style cartridge (essentially a blank round) to eject the rocket from the barrel, penetrate the water-proof disc at its base of the rocket, and ignite the propellant of now smaller, steel cased rocket.



Prior to 1926 most components were bought separately and then assembled by Schermuly and his staff. In 1926, the Schermuly Pistol Rocket Apparatus, Ltd. took form, and 1926 he set up his own factory in Cheam manufacturing from the raw materials, almost every thing, including the pyrotechnic components. The family business could now produce their own device to their own satisfaction. Within a year the business was stable.



Nine years after the invention of the new apparatus, came an event that was to seal the success on William Schermuly's work. This was the bringing into force on January 1st, 1929, of the Act of Parliament making compulsory the carrying of line-throwing appliances in British registered ships of over 500 tons. Nineteen days later, and thirty-two years after the invention of his first apparatus, William Schermuly died.



A old blurry photograph of a S.P.R.A. being fired at the vessel Cap Fagnet in its rescue off Iceland

The company carried on under the management of his sons. However in 1930 a slump in world shipping caused orders to fall, only slowly being rebuilt up again as it was now a must *have* for small trawlers in order to get insurance. Also War Department orders began coming in.

Around this time, Captain H.K. Fairbrother MBE became chairman and brought more capital to the organization. In 1938, a new Act enforcing new regulations that made for the compulsory carrying of line rockets by all ships of over 80 tons or 50 feet in length. Vessels of 500 tons and over had the maximum attainable distance of their line rockets increased from 120 yards to 200, and the line width go from 5/16inch to 1/2 inch.

When World War II broke out the company expanded quickly and began to venture into many varied fields of manufacture. New life saving and military products were developed.

A Kite Launching Rocket flown from a life raft, suspending a distress radio's aerial up high for effective transmission.



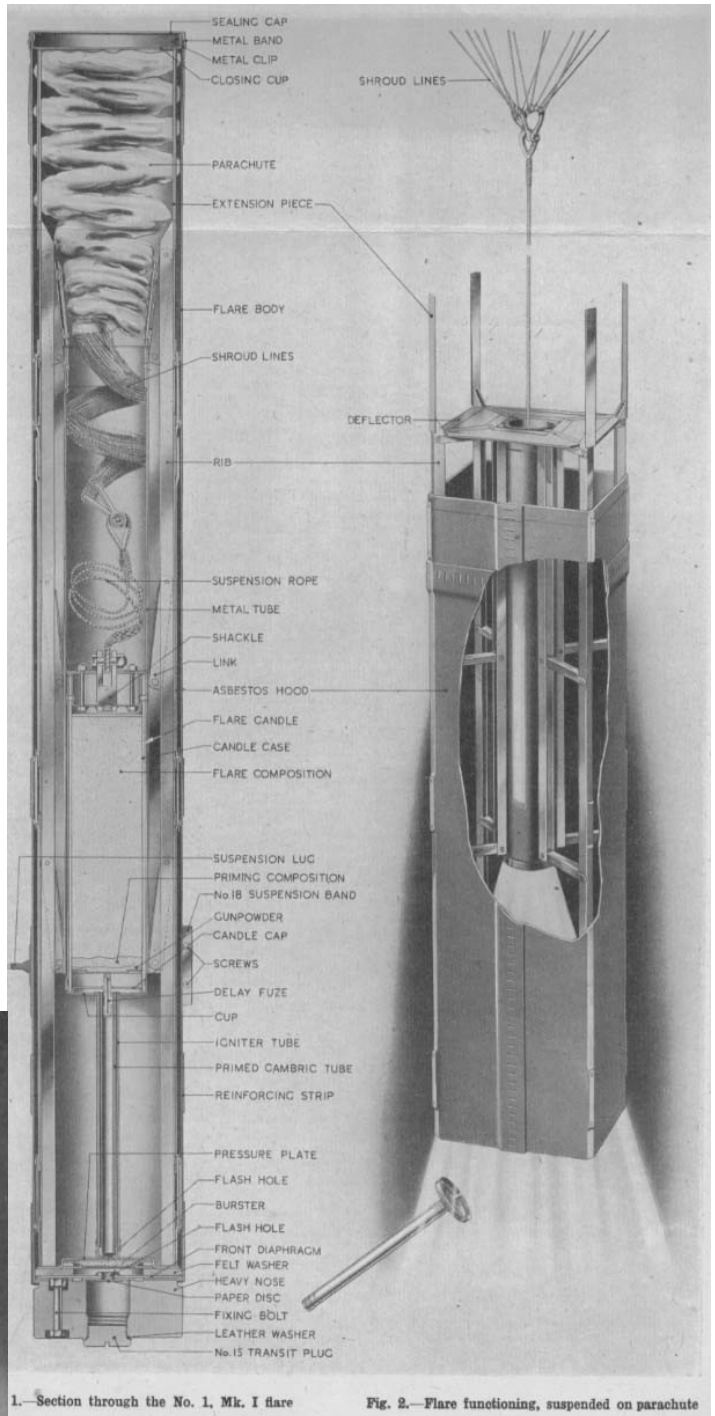
When the Allied bombers left their bases, they followed Pathfinder Squadrons to the destination.

Targets were marked with target markers called **TIFFS... Target Identification** →

These were 7,000,000 candle skymaker flare that were suspended by a parachute to illuminate the target.



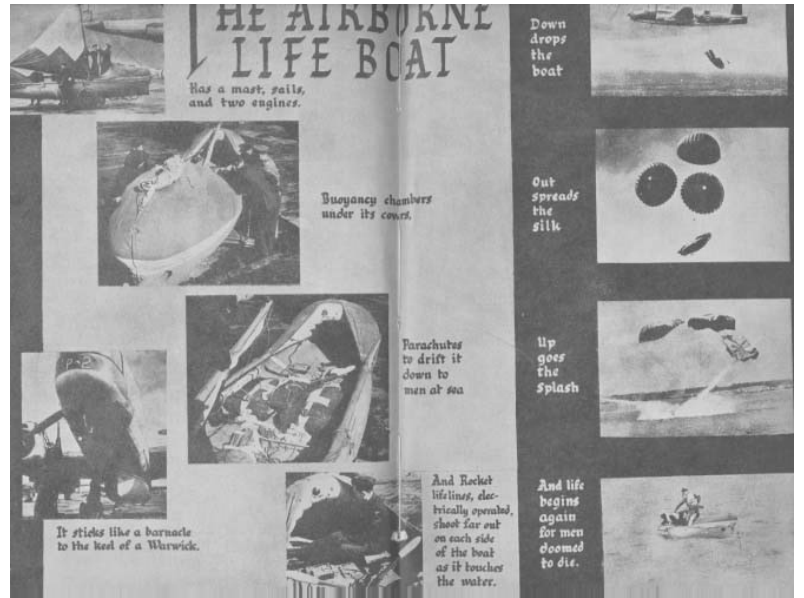
Lifeboat Parachute Distress Signal was a rocket device thrown overboard into the sea, firing after a 45sec delay a rocket to 1,000feet a 150,000 candle power parachute suspended flare, visible for 50 miles...so aiding rescue. This was 10 times more distance than existing distress signals, reducing the time crews of sunken vessels took to be spotted and rescued.



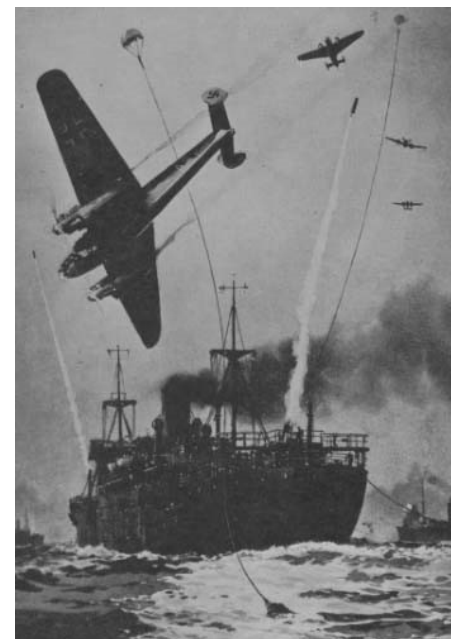
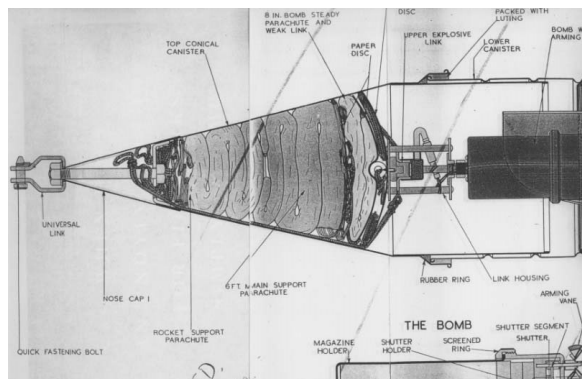
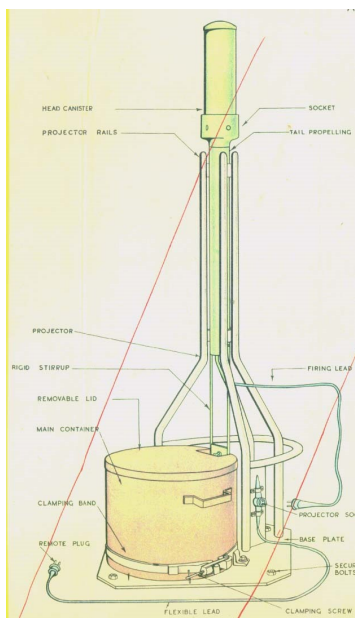
1.—Section through the No. 1, Mk. I flare

Fig. 2.—Flare functioning, suspended on parachute

Another amazing device was the *Air Sea Rescue Discharger*. This was an inflatable life raft dropped among crews swimming in the water; it would automatically open, inflate and rocket propel lines into the water for crews to haul themselves into the life raft.



P.A.C. rockets were used as a rocket barrage, akin to a Balloon Barrage to parachute suspend thin wires with explosive devices attached to foul the wings of attacking aircraft. This system was used on ships extensively.





On June 6th, 1944 a assault group made up of U.S. Army Rangers Assault Group landed on the beach below the cliffs at Pointe du Hoc, one of the most famous missions in Ranger history. The cliffs, scaled on the morning of June 6th, 1944, were the only way to a German artillery battery Allied commanders believed could wreck the D-Day invasion. More than a hundred Rangers were killed or wounded during the fighting in and around the guns.

Grappling hooks fired from Schermuly rocket launchers that had been fitted to their landing craft. These were used to fire ropes and grapnels up the cliffs.

The launchers and rope/ladder storage boxes were mounted along the top sides of the LCAs, three per side. The grapnels/rockets were attached to an assortment of rope ladders, toggle ropes and plain ropes selected to provide alternative methods of overcoming the various types of cliff face. The rope ladders were 2 inch manila ropes with wooden rungs that were 1 inch in diameter by 9 inches in length, spaced every 18 inches for 200 feet of the ladder and weighed 48 pounds. The toggle ropes had 5 inch wooden toggles spaced every three feet for 220 feet and weighed 45 pounds. The landing craft fired their rockets in pairs as they touched down. The rockets reached a height of 200 feet and easily cleared this 90 foot cliff with the grapnels falling at least 100 feet beyond the cliff's edge



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HISTORICAL SOCIETY
The SOCIETY

is a non-profit registered society which fosters the study of the military and the police, and the heritage of Canada, the British Empire, and the world as well as the preservation of military artifacts and records.

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