

MEDICINE

New Life-Saving Bandage

► A NEW life-saving bandage for use by first aiders rescuing air raid victims has been developed by two English doctors, Dr. David H. Patey and Dr. J. Douglas Robertson, of Middlesex Hospital. Details of how to apply the bandage appear in the latest issue of the *British Medical Journal* received in the United States (Aug. 22).

The patients on whom the bandage is to be used are those who have had arms or legs pinned down by a beam or other heavy objects for hours before release. These patients may look surprisingly well when first dug out of the debris but some hours later become gravely ill from shock, develop symptoms of kidney failure and often die.

The condition has been labelled "crush syndrome," but the English doctors think compression syndrome more accurately describes the condition. The leg or arm that has been pinned down becomes very hard and swollen with dropsy soon after its release and is partly or completely paralyzed from nerve compression.

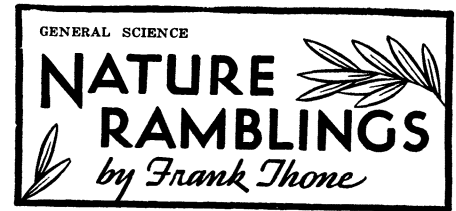
The condition can be remedied and the patient's life saved, Drs. Patey and Robertson believe, if the first aid team applies an elastic web bandage immediately after the beam or other heavy

object has been removed. The object of the bandaging is to prevent development of the dropsical swelling and get rid of any fluid that has already accumulated.

Two patients were successfully treated on this principle by application of pressure to the limb by a blood pressure cuff and a pavaex motor. This treatment was given in the hospital, but the doctors think the treatment should be started at the scene of the accident and since the number of pavaex motors is limited, they worked out the idea of a suitable bandage to apply the life-saving pressure.

Mere advice "to apply a firm bandage" is not enough and adhesive, rubber, domette and crepe bandages are unsuitable, the doctors state. When the elastic web bandage is applied from below up, stretching it to double its unstretched length, it produces exactly the right degree of pressure. To help the first aider judge the degree of stretch as he applies the bandage, it is marked off in one-half inch lengths. Stretching each of these to one inch, a distance easily judged accurately by most people, gives the right degree of pressure.

Science News Letter, October 3, 1942



Publication Delayed

► IF YOU have a printing job to be done and think the printer is a bit slow, don't grab the telephone right away and start squawking. Think of Brother Antonio. In 1628 he turned in a big book manuscript—and the publication job has only now been completed.

The great encyclopedic work on the wonders of the New World, written by Fray Antonio Vázquez de Espinosa, long reckoned as one of the most famous of "lost books," has finally been published here by the Smithsonian Institution as vol. 102 of its Miscellaneous Collections. It was lost for a long time—lost where it is hardest of all to find any particular book because it is surrounded by thousands of other books: lost in a great library. In this particular case it was the Vatican Library, where an American scholar, Dr. Charles Upson Clark, finally discovered the manuscript and the partially printed sections. It is at last available, in English translation, for anthropologists, historians, geographers and scholars of all angles of interest, under the title, *Compendium and Description of the West Indies*.

Fray Antonio, a very energetic, inquiring sort of person, spent the greater part of his adult life in South and Central America. He recorded everything he saw, quizzed missionaries, soldiers, officials, traders, and made judicious notes of all he learned. At last growing old, he went back home to write up and publish his tremendous accumulation of information. Unfortunately he died before much of his work got into print, and for three centuries scholars have known of his writings mainly through quotations by his contemporaries.

Fray Antonio made some mistakes

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in his accounts, especially where he was depending on the testimony of others. Like everyone else of his time, he describes California (which means Lower California) as an island. He also speculates on the location of the fabulous El Dorado, which has never achieved actual location on a map.

The book gives a rather good description of the American buffalo or bison as "woolly, humpbacked cattle with two short horns twisted backward. . . They are very ugly and wild. The wool on their chests in front is long and curly. They make excellent rugs from their hides."

He also had a good word to say for the Indians of what is now the southwestern United States, speaking of them as "very intelligent and well-governed. They wear cotton clothing and antelope skins which are well decorated. As jewelry they wear turquoise."

Science News Letter, October 3, 1942

RESOURCES

Over-Zealous Scrap Drive Endangers British Relics

► ENTHUSIASTIC but ill-informed salvagers are endangering some of Britain's prized and irreplaceable relics of former times, and have already done away with an ancient slide lathe of the year 1820 because it was in the way.

This is the complaint of E. Lancaster Burne, president, and H. W. Dickinson, secretary of the Newcomen Society (*Nature*, Aug. 8).

They go on to say that the scrapping of an ancient iron works, particularly of two unique eighteenth-century tilt hammers, was averted only by prompt action.

The Smithsonian Institution in Washington has scrapped its large collection of guns and tanks of World War I, but it has not disposed of the Wright Airplane nor any of the machinery in its museum. Scientists hope that while the maximum of scrap is produced for the war effort, care will be taken to carefully preserve all objects of enduring scientific and engineering interest.

Science News Letter, October 3, 1942

Italian experimenters are attempting to obtain iron from the coastal sands of that country.

Wrapping machines which once put transparent covers on cigars now wrap small radio batteries, needed for the Army, with a vital protective covering.

New Machines and Gadgets

☞ A PUMP for extinguishing incendiary bomb fires, which has recently appeared, operates in a novel fashion. The upright handle is swung to and fro as the operator stands on the base of the pump. This is said to be less back-breaking than the up and down motion of other pumps. The new pump is made entirely of wood and fabric. Thus no critical materials are involved.

Science News Letter, October 3, 1942

☞ SHINY BRASS buttons for soldiers and bellboys may be made by treating the articles with ferric sulfate just before the final burnishing. This substance, it is claimed, removes the scale and stain produced by the stamping and annealing operations. It is recommended also for cartridge cases which must be smooth.

Science News Letter, October 3, 1942

☞ BOILER SCALE can be removed, it is claimed, with hydrochloric acid to which an "inhibitor" has been added. The inhibitor prevents the acid from attacking the metal without reducing its action on the scale. Boiler scale, being a poor conductor of heat, lowers the efficiency of the boiler so that more fuel is required to raise steam. It is the same stuff that forms on a long used kettle.

Science News Letter, October 3, 1942

☞ DISPOSABLE TISSUES for industry are a new wrinkle. New wrinkle is right, for they are strongly creped and extra tough for removing dirt, oil and grease from machinery, a job usually done with cotton waste and old rags.

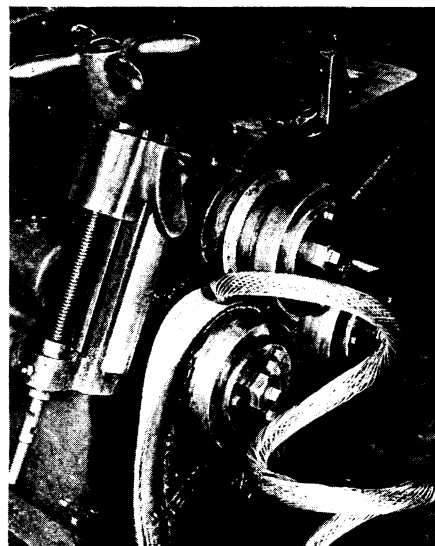
Science News Letter, October 3, 1942

☞ RADIO PROGRAMS you want to hear for a whole afternoon's or evening's entertainment will automatically be tuned in and out and the radio turned on and off at the proper times by a recently patented device.

Science News Letter, October 3, 1942

☞ RUBBER INSULATION is saved from old cables by the machine shown in the illustration. This machine originally served an entirely different purpose, that of bending rods and pipes. It was adapted to its present purpose by a change in the rollers. The top roller carries a circular V-shaped cutter which splits and spreads the insulation so that it is peeled off and the wire is thrust off to one side. Previously the insulation was burned and only the copper was saved. Now, with a shortage of scrap rubber, both are saved.

Science News Letter, October 3, 1942



☞ DRY ICE operates a newly invented target rifle in place of gunpowder. Since the ice evaporates completely to the inert gas carbon dioxide, there is no fouling of the gun, and enough crushed dry ice can be carried in the magazine of the 22 caliber rifle for 2,000 shots.

Science News Letter, October 3, 1942

☞ FLICKERING FLUORESCENT lamps will no longer be the annoyance they have been if the lamp is provided with a new type of starter now available which cuts the flickering lamp out of the circuit. At that moment a red button on top of the starter snaps forward, and must be pushed back to reset the starter after the worn-out lamp has been removed from the fixture.

Science News Letter, October 3, 1942

If you want more information on the new things described here, send a three-cent stamp to SCIENCE NEWS LETTER, 1719 N St., N. W., Washington, D. C., and ask for Gadget Bulletin No. 124.

★ PROTECTION AGAINST GAS

A 35 MM FILMSLIDE for science Teachers, Doctors and Defense Groups who have been assigned the difficult task of educating the public regarding the practical aspects of Chemical Warfare. The work consists of 80 frames entirely self explanatory. The first 40 are especially for the layman and are intended to clarify some of the popular misconceptions of gas warfare. This is followed by 16 charts of the more common war gases, their properties, effects and first aid measures. The last part deals with gas mask drill, protective clothing and gas shelter.

35 mm Single Frame size, \$3.00. Double Frame size, mounted in 2" x 2" glass slides (including indexed carrying case) \$25.00.

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