

If duplicated in the human heart will enable surgical science to repair many injuries to that delicate organ, which are now invariably fatal.

Heart operations have been impracticable because of the impossibility of arresting circulation without stopping life itself. But Dr. Carrel has proven that life may go on while the heart itself has stopped.

Dr. Carrel stopped the hearts of the dogs by clamping rubber tipped clamps to the arteries, restoring the circulation nearly three minutes later by removing the clamps.

Dr. Robert Proust, the distinguished French surgeon, interested the assemblage by the statement that he had extracted a bullet from the heart of a boy four years ago. The boy is now earning his own living.

Dr. Proust described the operation to me later at the Hotel Astor.

"On Feb. 20, 1910," he said, "I found a boy of 13 years at the Trousseau Hospital, who had been accidentally shot by a playmate. An examination showed a bullet in the heart and I decided an immediate operation alone would save him.

"I traced the course of the bullet and made an incision, lifting the skin and soft parts along the breast bone. I found the cartilage of the fifth rib shattered by the bullet. I raised it and found bubbling blood. I sectioned the fourth and sixth rib cartilages at the breast bone, completing the flap of flesh and turned the flap back, unfastening and pushing back the pleura (membrane of the thorax). I applied compresses to the breach, cleansed the operative field and distinguished the wound in the pericardium (the membrane sac around the heart) from which the blood had spurted.

"I enlarged the wound to three inches and explored the pericardiac cavity (surrounding the heart). I could not see the heart apex because of a huge clot of blood.

"I removed this clot and with it the bullet, loose in the pericardium

(membrane around the heart).

"Then I found a wound in the heart itself, allowing blood to escape with each contraction. I grasped the violently beating heart with difficulty and sewed up the wound as it beat in my hands. The first stitch perforated the heart wall and stopped the hemorrhage, but blood continued to escape along the needle and thread.

"I made three other non-perforating stitches with a smaller needle covering this seam with another series of stitches. Then I stitched up the pericardium, repaired the shattered breast wall and completed the operation.

"A month after the operation, the boy took up his work as messenger. He shows no signs of heart trouble beyond a slight panting when he ascends stairs. He is now a bookkeeper."

"NOTHING SEEMS IMPOSSIBLE TO MODERN SURGERY"

Says Noted Chicago Doctor.

Dr. John B. Murphy, the great surgeon of Western America, in commenting on Dr. Robert Proust's report to the American Surgical Association, stated the possibilities of accidental surgery on the heart were almost limitless.

"The story of Dr. Proust's successful operation on the heart of a boy is correct in every detail," said Dr. Murphy. "And I like the spirit shown by The Day Book in verifying reports of a scientific nature. It eliminates a great many chances of error creeping into the news about the accomplishments of surgery.

"The progress of accidental surgery on the heart has been almost unbelievable in the last ten years.

"Now it is possible to sew up a cavity penetrating the wall of the heart if the surgeon is enabled to start work before the patient has lost too much blood. The arresting of the circulation makes such an operation possible.

"It would be foolish to say that sur-