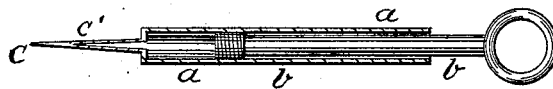


Z. Jayne,
Syringe,
N^o 2,032, Patented Apr. 2, 1841.



UNITED STATES PATENT OFFICE.

ZOPHAR JAYNE, OF GREENE COUNTY, ILLINOIS.

METHOD OF TREATING REDUCIBLE HERNIA, BY WHICH ADHESION OF THE HERNIAL SAC IS PRODUCED AND A RADICAL CURE EFFECTED.

Specification of Letters Patent No. 2,032, dated April 2, 1841.

To all whom it may concern:

Be it known that I, ZOPHAR JAYNE, M. D., of the county of Greene and State of Illinois, have invented a new and useful operation and plan of treatment for the radical cure of reducible hernia and also a new and improved instrument therefor, and the following is a full and exact description thereof.

A very small instrument or apparatus made somewhat on the plan of a syringe is first used in the operation, the protruding viscera having been previously returned to their appropriate place. The beak of this instrument is very small and sharp at the point like a needle is made of steel, but may be of other metallic substance from three fourths of an inch to one inch or more in length, perforated or drilled out longitudinally from the upper end or part connected with the barrel or tube above constituting the body of the instrument to within about a line of the point where the perforation communicates or opens laterally. The other end of the beak is enlarged or swelled out and permanently soldered, screwed or otherwise attached to a tube or barrel of silver (or other hard substance) about two inches in length, the caliber perforation or hollow of which is from one to one and a half to two lines in diameter. Into this barrel cylinder or tube a forcing piston is fitted and adjusted, being made of ivory, bone, wood or other hard material, the end of which passing into the tube or barrel is covered with leather or wrapped with flax or other soft substance so as to be air tight when introduced into the barrel. At the other and upper end of the piston is a knob or something else answering the purpose of a handle in order that pressure may be made on it to force the oil or fluid or whatever else may be used in the operation out of the barrel or tube at the eye or lateral opening in the beak of the instrument into the parts about the aperture through which the hernia descended. The piston is so constructed that it can be removed or withdrawn from the tube or barrel at pleasure which admits of the barrel being charged or more or less filled with whatever is intended to be used in the injection in any particular case.

The fluids or oils used for injecting may be the oil of cloves or other exciting essential oils, the oil or spirits of turpentine alone or in combination with laudanum or

the tincture or decoction of cantharides, alcohol, wine or any other stimulating or exciting fluids or oils of whatever kind. The quantity as well as the quality of the fluid or oil for each injection or operation will vary according to the greater or less susceptibility of the patient in each particular case. Sometimes two or three drops or even a less quantity will be sufficient, while in others twenty or more drops may be required to make the necessary impression. The quantity consequently, as well as the quality, of the fluid or oil used must be regulated by the particular circumstances of each case there being in some cases less susceptibility to impression than in others and more stimuli required to produce the necessary excitement. A sufficient irritation, excitement or inflammation must however be produced in all cases even if it should become necessary to repeat the operation of injecting the fluid or oil several times in order to induce the formation, throwing off and deposition of the coagulable lymph of the blood either in the peritoneal or hernial sac, common cellular membrane or other parts contiguous thereto wherever the hernia may occur in any particular case.

The beak of the instrument is carefully introduced through the common integuments until the point passes through or into the neck of the hernial sac or into the common cellular membrane or other parts at in or about the aperture or opening through which the viscera passed out from the abdominal cavity. The point of the instrument having thus transfixed the neck of the sac or having been extended quite low enough to reach the ring or opening or other parts thereabouts avoiding in its introduction the spermatic cord, epigastric artery, &c., the barrel or body of the instrument is now firmly held with one hand while with the other pressure is firmly and steadily made upon the knob or handle of the piston so as to force the fluid or oil contained in the barrel out through the lateral opening near the point in the beak of the instrument before spoken of, gradually turning it around at the same time so as to diffuse the fluid or oil thus forced out somewhat equally into the hernial sac or parts about the opening through which the hernia descended. The piston portion of the instrument is to be removed and the fluid or whatever else is to

be used for the injection dropped or poured gradually into the barrel, the lower end of the piston passed a little way into the upper end of the barrel and the operation performed as above indicated. After which the next step is to retain the protruding viscera or parts in their proper place until union or adhesion shall take place either between the internal surfaces of the hernial sac or a condensation of the common cellular membrane is brought about on account of the excitement from the injection or until the aperture or opening above alluded to is sufficiently lessened, diminished or obliterated by such adhesion or attachment as to prevent a subsequent descent or protrusion of the hernia. Such retention may be effected after the operation or injection by the proper application of an elastic steel spring covered with leather and slightly cushioned on the inside with wool or other soft material.

The kind of spring or truss used must of course be adapted to the size and other circumstances of the patient. From the great variety of springs or trusses in use such should be selected as may be deemed best adapted to any particular case, and every competent practitioner will be able to do this upon general and well known principles.

It may happen in some cases that the fluid or oil injected as heretofore pointed out will produce too much excitement or irritation in the parts on account of which constitutional symptoms may intervene such as chilling, febrile excitement, thirst, restlessness, &c., in the event of which it will be proper to confine the patient, remove the compressions of the spring or truss for a day or two, and adopt blood-letting, purging, low diet and emollient poultices or other applications to parts operated upon until the febrile excitement of the general system, as well as the local inflammation of the parts, shall sufficiently subside. In other cases when the symptoms do not threaten to run high, but there is nevertheless too much local irritation and swelling at the point of operation a little confinement for a day or two with emollient poultices to the parts will be all that is necessary. On the other hand it may sometimes happen that the fluid or oil injected will not occasion enough irritation, excitement or inflammation to produce the necessary union adhesion or attachment in the parts about the hernial aperture to prevent the protrusion of the

viscera, in which case it will be necessary to repeat the injection every few days until the excitement is sufficiently intense for the purposes above alluded to. Finally it may be remarked in this place that the most important matters to be relied on is the injecting of the stimulating fluid oil or whatever else is made choice of in the manner heretofore spoken of and the subsequent judicious support and retention of the viscera within until the adhesion is complete, consequently therefore any kind of instrument by which the injection can be performed as above will answer the purpose, and any kind of bandage belt spring or truss capable of properly sustaining and keeping the parts in complete and steady coaptation after the injection of the stimulating fluid will answer the purpose.

In the accompanying drawing I have represented the manner in which I construct my improved instrument or syringe for perforating the integuments and injecting the essential oil or other stimulating fluid into the hernial sac or other parts about the openings. The instrument as drawn is of a size larger than is necessary for use.

a, a, is its barrel or cylinder; *b, b*, its piston; *c, c'* its beak, *c*, being its sharp point and *c'* showing the lateral opening of the perforation through which the fluid or oil is to be discharged.

Having thus fully described the nature of the operation to be performed for the radical cure of reducible hernia and the manner of constructing the instrument which I have invented and use therefor, what I claim as my invention or discovery and desire to secure by Letters Patent is—

1. The injecting into the hernial or peritoneal sac or into the common cellular membrane or parts in at or about the abdominal or femoral rings or openings wherever the hernia may occur, of an essential or other stimulating or exciting fluid for the purpose herein fully set forth whether the same be done or injected by means of the syringe herein described or by any other instrument adapted to that purpose.

2. And secondly I claim the constructing and using of a syringe for the above purpose having a sharp pointed beak and a lateral opening therein substantially as described.

ZOPHAR JAYNE.

Witnesses:

THOS. P. JONES,
W. THOMPSON.