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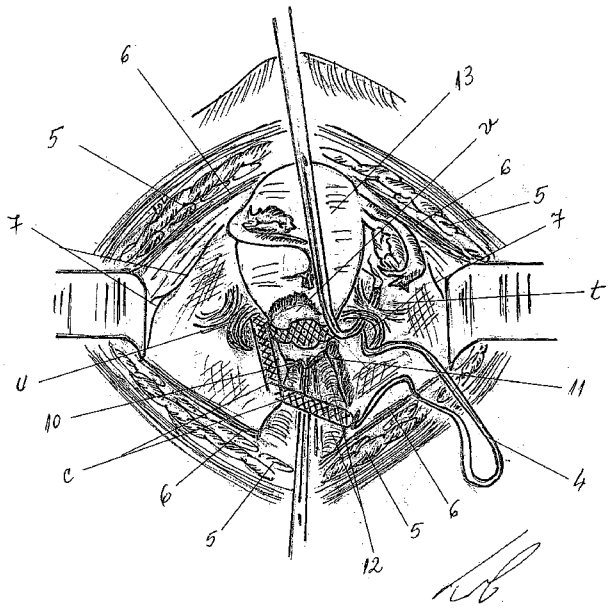

Fig. 9 Capatul firului bandeletei stangi, patrunde in tunelul din partea stanga apoi trece peste bandeleta din partea opusa si prin tunelul din partea dreapta dupa aceea iese pe fata anterioara a istmului subperitoneal

(57) Abstract: The invention relates to a medical instruments kit and to a method of surgical treatment of the moderate or advanced prolapse of the anterior vaginal wall, of the moderate or large cystocele, of the stages I, II or III uterine prolapse or of the rectocele combined or not with another uterine or ovarian pathology such as uterine fibroma or benign ovarian cysts. Medical instruments kit claimed by the invention, comprising a box provided with some compartments that are constructively adequate to accommodate a scalpel, 6 Pean clamps, 4 Kocher clamps, two surgical scissors (A), a clamp (B) for anchoring the uterine isthmus, a sling (C) for isthmus fixation, 2 Farabeuf retractors and some resorbable or non-resorbable suture threads, of which, the clamp (B) consists of a smooth rigid body (1) provided with two distal portions (a and b), that are inclined starting in front of a distal bridge (e) which joins them up to their joining by welding, thus forming a long rectilinear intermediary portion (c), with a decreasing width up to the proximal end (f), in front

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MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

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of which it is continued with a proximal portion (d), profiled in the shape of a semicircle, ending with a blunt tip (i), in whose proximity there is made an oval orifice (j), and in the immediate proximity of the bridge (e) some guiding rings (g and h) are integrally attached to the distal portions (a and.b), and the sling (C) for isthmus fixation consists of a body (2) consisting of a medically acceptable material, consisting of propylene in the shape of a network having some meshes (k), to whose end portions (I and m) there are tied, in turn, one of some non- resorbable threads (3 and 4) made of polypropylene, provided with two of some free ends (n, o, p and q), this last body (2) mentioned being provided with two small and large interior circular regions (r and s).

MEDICAL INSTRUMENTS AND KIT FOR USE IN UTERINE PATHOLOGY

The invention relates to a kit of medical instruments and to a method for the surgical treatment of the moderate or advanced prolapse of the anterior vaginal wall, of the moderate or large cystocele, of stages I, II or III uterine prolapse or of the rectocele combined or not with another uterine or ovarian pathology, such as uterine fibroma or benigne ovarian cysts.

Uterine prolapse means the uterus descent into the vaginal axis and outside it, accompanied by the movement to the same direction of the vagina walls and of the adjacent portions of the urinary bladder and rectum, namely a progressive descent into the small basin of the uterus.

This explains the herniation, and the uterine prolapse, respectively, outside the vulval commissure in various stages.

The prolapse of the anterior vaginal wall and of the uterus are included in statica pelvina disorders, being the result of the disbalance between the propulsive abdominal and gravity forces, on the one hand, and the resistance force opposed thereto (resulting from the conjugated action of the means for orientation and sustaining the uterine support), on the other hand.

From the physiopathological viewpoint, the dynamic anatomic concept, made known to the public by Petros Popa in 1996, explains the close relationships between structure and function, the force supporting the pelvic structures being maintained intact by the good functioning of the suspension elements consisting of the pubourethral ligaments, uterosacral ligaments, tendinous arch of endopelvic fascia .

Among the risk factors determining this pathology the following are to be mentioned:

- obesity, smoking, pulmonary diseases, chronic constipation
- loss of the muscular tonus associated with aging and postmenopausal lowering of the estrogen quantity
- multiple childbirths or giving birth to a high weight child.

All these factors constitute the main cause for relaxing and weakening the means for supporting the small basin organs, that explains the occurrence of the clinical symptoms, consisting in the feeling of heaviness at the lower portion of the pelvis, lumbar spine pain when walking, dysuria, dyspareunia, the feeling that "something is going to fall out/is sitting on a ball", introitus irritation and ulcerations of prolobate organs.

Uterine prolapse particularly affects postmenopausal women who gave birth naturally, had a difficult childbirth or more times.

All these symptoms create a biological and social discomfort for the patient.

There are known medical instrument kits for surgery treatment in uterine pathology, said kits comprising a scalpel, two scissors, six Pean clamps, four Kocher clamps, a metal bladder probe, two Farabeuf retractors, a clamp for anchoring the uterine isthmus and two isthmus and suburethral slings, respectively – patent application WO 2014 107 117 A2

Disadvantages of these kits consist in that they do not allow an anatomical reinstatement of the uterus in its normal position in order to prevent static pelvina disorders, erosions and erroneous positioning of the vaginal walls in case of surgery by the vaginal route, and in case of a uterine fibroma associated with uterine prolapse, the instrument kit only allows total or subtotal hysterectomy.

There are known methods for the treatment of the uterine prolapse, which consist in making, by means of a scalpel, a reversed "T"-shaped incision of the anterior portion of the uterus cervix, then detaching, from the lateral side, the urinary bladder mucosa, and the latter from the uterus cervic, up to the level of the uterine isthmus, further identifying the vesico-urethral junction by means of the right hand forefinger which penetrates paraurethral, retropubic and suprasymphyseal, carrying out, in turn, one of the two right hand and left hand tunnels, respectively, then the incision is continued of the rear face of the uterus cervix and detaching the vaginal musosa, followed by pinching, sectioning and ligating the cardinal ligaments and fixing the isthmic sling by the long portion, and the short portion is sutured on the front face of the uterine isthmus, continuing by making, by means of the scalpel, another suprapubic incision in order to allow

the passing, in turn, of all threads through the tunnels, penetrating into the rectus abdominis muscle sheath, that are introduced, in turn, anteriorly through the orifices in a proximal curved region of the clamp, that allows to carry out colpectomy and anterior colporrhaphy, as well as the suturing of the posterior incision on the uterus cervix, thereafter the suburethral sling being mounted at the cystourethral junction level, so that the two ends of the threads thereof can be anchored at the rectus abdominis muscle sheath, under the control of the urethral probe, there being obtained a urethra elongation as against the anchoring of the suburethral sling threads ends and further on there takes place the pulling and legating of the isthmic sling threads ends up to bringing the uterus cervix back into a position as close as possible to the normal one, then, by means of the short portion of the isthmic sling, the uterine isthmus is covered and fixed on the anterior face, finally, the short portion end being cut according to the female patient's dimension and fixed under the long portion in the uterine isthmus and suturing the incision - the patent application US no. 2015 0335 413 A.

Disadvantages of these methods consist in that they do not allow another benign uterine pathology, such as uterus fibroma or another benign adnexal ovarian pathology and the anatomical reinstatement of the uterus into its normal position, respectively, to be also solved during these operating times..

There is known a use of the medical instrument kit for restoring the adjacent anatomic connections for the first, second or third stage uterine prolapse and for marked cystocele – permagna, respectively.

The partial technical problems solved by the kit according to the claimed inventions consist in repositioning the uterus into its normal anatomic position and maintaining it in this position over time, eliminating the reoccurence of the prolapse and, in applying a complete, efficient and long-lasting surgical treatment of the stage I, II or III uterine prolapse, of the moderate or advanced cystocele or of the rectocele associated or not with another benign uterine or adnexal pathology, respectively.

The kit claimed by the invention eliminates the previously shown disadvantages and solves the technical problem by the fact that comprises a box

provided with some compartments that are constructively adequate for accommodating a scalpel, 6 Pean clamps, 4 Kocher clamps, 2 surgical scissors, a clamp for anchoring the uterine isthmus, a sling for isthmus fixation, 2 Farabeuf retractors and resorbable and non-resorbable suturing threads, of which the clamp consists of a smooth rigid body provided with two distal portions inclined, starting in front of a distal bridge up to their integrally joining to form an intermediary, rectilinear portion having a width decreasing up to a proximal end, in front of which it is continued with a proximal portion, profiled in the shape of a semicircle, ending with a blunt tip, in whose proximity there is made an ovel orifice, and in the close proximity of the bridge, some guiding rings are joined to form one piece on the distal portions, and the sling for isthmus fixation consists of a body consisting of a medically acceptable propylene material in the form of a network having some meshes, to the ends of the body there are ligated, in turn, one of some non-resorbable threads, made of polypropylene, provided with two of some free ends, this last mentioned body being provided with two circular internal regions, namely a small one and a big one, respectively.

The instrument kit claimed by the invention also solves the technical problem by the fact that the clamp body length is of 25.0 cm, from the lower level of the rings up to the proximal end of the intermediary portion this having a length of 23.0 cm, and the blunt tip is placed at a distance of 17.0 cm from the lower level of the rings.

The kit claimed by the invention also solves the technical problem in that the semicircular proximal portion of the clamp body is so arranged into the plane in relation to the proximal portion and, the blunt tip thereof, respectively is at a distance of 7.0 cm and 6.5 cm, respectively.

The kit claimed by the invention also solves the technical problem in that in the proximal portion of the clamp body, at a distance of 0.5 cm from the blunt tip, there is made an oval orifice having a length of 0.04 cm and a width of 0.02 cm.

The kit claimed by the invention also solves the technical problem in that the length and width of the sling for fixing the isthmus have values of 25.0 cm

and 1.1 cm, respectively, and the dimension of some meshes that form the network thereof is of 0.03 mm.

The kit claimed by the invention also solves the technical problem in that, at a distance of 7.0 cm from the right hand end of the sling body, there is located a small interior circular region near which, at a distance of 2.0 cm, there is situated the large interior circular region, located at a distance of 13.0 cm in relation to the left hand end, and the diameters of the small and large interior circular zones are equal to 2.0 cm and 2.5 cm, respectively.

The method claimed by the invention eliminates the previously shown disadvantages and solves the technical problem in that it is carried out during the following operating times:

- operating time I, wherein, by means of the scalpel a main median pubosubumbilical or lower transversal incision is made;
- operating time II, wherein there is carried out the fat tissue incision up to the rectus abdominis muscles aponeurosis, along the median or transverse line corresponding to the main incision;
- operating time III, wherein there is carried out the incision along the median line of the parietal peritoneum;
- operating time IV, wherein there is carried out a transverse incision of a length of 4.5...5.5 cm of the vesico-uterine peritoneum, thereafter the urinary bladder is detached on a distance necessary for positioning the large circular interior region of the sling body;
- operating time V, wherein there is carried out an incision on a distance of up to 3.0 cm of the rectovaginal peritoneum at the uterine isthmus level, the rectum being detached on a distance necessary to position the small interior circular region of the sling body;
- operating time VI, wherein there are built two parauterine tunnels to the right and left sides;
- operating time VII, wherein the sling body is positioned with the large

interior circular region onto the anterior surface of the uterine isthmus, at which level this is fixed with two non-resorbable threads in order to prevent it from sliding;

- operating time VIII, wherein the ends of the thread tied to the right hand end of the sling body are introduced, by means of another clamp, into the right hand tunnel on the uterine isthmus surface and taken therefrom onto the posterior uterine isthmus surface, thereafter they are wound at the level thereof onto the posterior surface to fix the small interior circular region at this level, thereafter, it enters the left hand tunnel on the posterior surface, to come out anteriorly to the uterine isthmus;

- operating time IX, wherein the ends of the thread tied to the left hand end of the sling body are brought into the position in which they are passed over the small interior circular region, being exteriorized on the anterior surface of the uterin isthmus, under the parietal peritoneum, which is surrounded and anchored, as in a hammock, to the sling body;

- operating time X, wherein, the small interior circular region is fixed to the posterior surface of the uterine isthmus by two non-resorbable threads;

- operating time XI, wherein there is prepared the place for fixing the sling body halfway the distance on which the pubosubumbilical incision is made;

- operating time XII, wherein the right hand thread ends are introduced through the orifice provided in the proximity of the blunt tip of the proximal portion of the clamp, which penetrates extraperitoneally in the direction of the rectus abdominis muscle aponeurosis detached from the right side, level at which it is taken out to the periphery and it is fixed with a needle thereto;

- operating time XIII, wherein the left hand thread ends are supported by the proximal portion of the clamp body, by means of which it penetrates extraperitoneally in the direction of the situs of the rectus abdominis muscles aponeurosis detached, from the left side, at that level a perforation is made and it is fixed by means of a needle thereto;

- operating times XIV and XV, wherein the vesico-uterin peritoneum and of the rectovaginal peritoneum sutures are carried out;

- operating time XVI, wherein there are carried out the test pulling and ligating the threads at the aponeurosis level, arranging the uterus into position and oriented along the sagital direction.

The technical problem is also solved in that the medical instrument kit is employed for applying a surgical treatment of stage I, II or III uterine prolapse, of moderate or advanced cystocele or of the rectocele, for the purpose of fixing the uterine isthmus into its anatomic position by the extraperitoneal route.

The technical problem is also solved in that the method claimed by the invention is employed for a treatment, wherein the surgical approach is exclusively on the extraperitoneal route, of the stage I, II or III uterine prolapse, of the moderate or advanced cystocele or of the rectocele associated or not with another benign uterine or adnexal pathology.

The kit and method claimed by the invention are susceptible of industrial application and lead to obtaining the following advantages:

- the clamp by its construction is easy to handle and allows to pass the ends of the threads tied to the end portions of the sling for isthmus fixation extraperitoneally, up to the rectus abdominis muscle aponeurosis level, at which level a perforation is made and the threads are fixed;
- the clamp is smooth and rigid, so that it does not cause vascular lesions and allows to guide the blunt tip that it is provided with;
- the sling for fixing the isthmus, made of non-resorbable polypropylene allows to entirely surround the uterine isthmus, so that the uterus is maintained by this as in a hammock and it is ligated to the rectus abdominis muscle sheath, a hormonally independent tissue, that eliminates the reccurence chances;
- the kit allows the application of a complete, efficient and long-lasting surgical treatment of the stages I, II or III uterine prolapse and of the moderate or advanced cystocele, when the surgical approach is exclusively on the peritoneal route;
- the method may also be used when there exists or not another benign uterine or adnexal pathology;
- corrects the urinary stress incontinence;

- the surgical approach is exclusively on extraperitoneal route, prevents the adhesion formation or even a bowel obstruction;
- allow the reinstatement and maintaining the uterus in its anatomic position, that avoids the enlarging of the rectovaginal space and consequently, prevents the occurrence of rectocele and eritrocele.

There are given hereinafter an example for carrying out the kit, and the method claimed by the invention, respectively, in connection with Figures 1...12, which represent:

- Fig. 1 front view of a clamp for anchoring the uterine isthmus, according to the invention;
- Fig. 2 side view of the clamp;
- Fig.3 side incidence view of a sling for isthmus fixation, according to the invention;
- Fig. 4 schematic incidence view of the embodiment, during the operating time I, of a transverse incision of the vesico-uterine peritoneum, with slight detaching of the urinary bladder, according to the invention;
- Fig.5 schematic incidence view of the embodiment, during the operating time II of the recto-vaginal peritoneum incision with rectum detaching, according to the invention;
- Fig. 6 schematic incidence view of carrying out, during the operating time III, two parauterine tunnels, according to the method;
- Fig. 7 schematic incidence view of fixing, during the operating time IV, the sling for isthmus fixation with the large circular region located on the anterior face of the uterine isthmus, according to the invention;
- Fig. 8 schematic incidence view of locating, during the operating time V, the small oval part on the posterior face of the uterine isthmus, by passing the right hand thread ends through the right hand tunnel and then, through the left hand

tunnel and taking them out on the anterior face of the uterus, according to the invention;

- Fig. 9 schematic incidence view of introducing, during the operating time VI, the ends of the thread tied to the left side of the sling through the left hand tunnel, their coming out, passing over the opposite side of the sling, introducing the thread throught the right hand tunnel and its coming out on the anterior face of the subperitoneal isthmus, according to the invention;
- Fig. 10 schematic incidence view of fixing, during the operating time VII, the sling for fixing the isthmus with the small circular region, located on the posterior face of the uterine isthmus;
- Fig. 11 schematic incidence view, of laterally detaching, during the operating time VIII, the rectus abdominis muscle aponeurosis;
- Fig. 12 schematic incidence view of the clamp path, during the operating time IX, introduced on the right side, extraperitoneally up to the level of the rectus abdominis muscle aponeurosis, anteriorly detached.

The kit claimed by the invention comprises a box, not represented in the figures, wherein there are provided some compartments constructively adequate to accommodate therein a scalpel, 6 Pean clamps, 4 Kocher clams, 2 surgical scissors A – all these being known per se - a clamp B for anchoring the uterine isthmus, a sling C for isthmus fixation, two Farabeuf retractors, some resorbabile and non-resorbable suturing threads.

The clamp B consists of a smooth rigid body **1**, provided with two inclined spaced apart distal portions **a** and **b**, an intermediate long portion **c**, and a proximal portion **d**; the last having the same width on its whole legth. Portions **a** and **b** are joined to each other by means of a distal bridge **e**, forming an isosceles triangle, and at the upper side they are joined to one another by welding, to form the intermediate flat portion **c** with a decreasing width towards a

proximal end **f**. In front of the bridge **e** to the portions **a** and **b** there are integrally atached two rings **g** and **h** for guiding and applying a force necessary for carrying out some perforations during the application of the method of surgical treatment, according to the invention.

Portion **c** is continued with portion **d** which has a semicircular shape and it is placed in relation to the intermediate rectiliniar portion **c** so that the distances between the latter and a farthest point and a smooth blunt tip I, respectively, of the portion **d** are equal to 7.0 cm and to 6.5 cm, respectively. At a distance of 0.5 from the tip I in portion **d** there is made an oval orifice **j**, with a length of 0.04 cm and a width of 0.02 cm.

The length of body 1 is of 25.0 cm and from the lower level of rings **g** and **h** up to the end **f** of the portion **1** it has a length of 23.0 cm.

The blunt tip **i** is located at a distance of 17.0 cm from the lower level of the rings **g** and **h**.

The portions **a, b, c** and **d** and the rings **g** and **h** are located in the same plane.

The sling **C** for fixing the isthmus consists of a body **2** formed of a medically acceptable material, which preferable is polypropylene, in the shape of a network, having some meshes **k** with the size of 0.03 mm, with the length of 25.0 cm and a width of 1.1 cm. To some end portions **l** and **m** of the body **2** there is tied, in turn, one of some threads **3** and **4** made of a non-resorbable material as the one the body **2** is made of, provided with two of some free ends **n**, **o**, **p** and **q**. At a distance of 7.0 cm from the portion **l** the body **2** it has a small circular inner portion **r**, near which, at a distance of 2.0 cm there is located a large, circular interior portion **s**, located at a distance of 13.0 cm in relation to the other portion **m**. The diameters of the regions r and s are equal to 13.0 cm in relation to the other portion m. The diameters of regions **r** and **s** are equal to 2.0 cm and 2.5 cm, respectively.

The method claimed by the invention, wherein the clamp **B** and sling **C** are applied, consists of the following operating times:

During the operating time I, there is carried out, by means of the scalpel, a main median pubosubumbilical or a low transversal incision.

During the operating time II, there is carried out the fat tissues incision **5**, up to the rectus abdominis muscle aponeurosis **6**. The incision is made on the median line or transversally, corresponding to the main incision.

During the operating time III, an incision along the median line of the parietal peritoneum **7** is carried out.

During the operatingh time IV, a transverse incision of 4.5 ... 5.5 cm of the vesico-uterine peritoneum **8** is carried out, followed by detaching the urinary bladder **9** on a distance necessary in order to position the large circular region **s** of the body **2** of the sling C.

During the operating time V, an incision of up to 3.0 cm of the retrovaginal peritoneum **10** at the level of the uterine isthmus **11** is carried out, the rectum **12** being detached on a distance necessary for positioning the small circular region **r** of the body **2** of the sling **C**.

During the operating time VI, two parauterine tunnels **t** and **u**, to the right side and left side, respectively, are built by the right hand forefinger, penetrating, in case of building the right hand tunnel **t**, subperitoneally between the rectovaginal peritoneum **10** in front of the posterior surface **v** of the uterine isthmus **11**, coming out at the level of the commissure of the vesico-uterine peritoneum **8**, in front of an anterior surface **w** of the uterine isthmus **11**, on the right side. The other left hand tunnel **u** is built by applying the same technique.

During the operating time VII, the body **2** of the sling **C** for isthmus fixation with the large circular region **s** on the anterior surface **w** of the uterine isthmus **11**, level at which it is fixed with two non-resorbable threads in order to prevent the sliding thereof, situation not represented in the figures.

During the operating time VIII, the ends **o** and **n** of the thread **3** tied to the body **2** of the sling **C** are introduced, by means of a clamp known per se, into the tunnel **t** on the right side on the anterior surface **w** of the uterine isthmus **11** and taken out therefrom onto the posterior surface **v** of the uterine isthmus **11**, thereafter they are wound at the level thereof on the posterior surface **v**, fixing

the small circular region **r** of the body **2** at this level, thereafter penetrating into the left hand tunnel **u** on the posterior surface **v**, coming out on the anterior surface of the uterine isthmus **11**.

During the operating time IX, the ends **p** and **q** of the thread **4** are introduced into the left hand tunnel **u**, thereafter they are passed over the small circular region **r** in the opposite side and are introduced through the right side tunnel **t** and are externalized on the anterior surface **w** of the uterine isthmus **11**, under the parietal peritoneum **7**. Thus, the uterine isthmus **11** is surrounded and anchored as in a hammock by means of body **2** of the sling **C**.

During the operating time X, the fixation of body **2** is carried out through the small circular region **r** on the posterior surface tunnel **t** of the uterine isthmus **11** with two non-resorbable, threads in order to prevent the body **2** from sliding, situation not represented in the figures.

During the operating time XI, the lateral detaching of the rectus abdominis muscle aponeurosis **6** from the fat tissue **5**, preparing the site for fixation of the body **2** halfway the pubosubumbilical incision distance.

During the operating time XII, the ends **n** and **o** of the thread **3** are introduced from the right side through the orifice j, thereafter, by means of the proximal portion **d** of the body **1** of clamp **B**, there penetrates extraperitoneally, under the right hand peritoneum commissure of the vesico-uterine peritoneum **8**, in the direction of the situs of the rectus abdominis muscle aponeurosis **6**, detached from the righ side, level at which, it is perforated and fixed by means of a needle known per se to the rectus abdominis muscle aponeurosis **6**, on a distance of 2 cm.

During the operating time XIII, the ends **p** and **q** are introduced from the left side through the orifice **j**, thereafter, by means of the proximal portion **d** of the body **1** of the clamp **B**, it is extraperitoneally penetrated under the left commissure peritoneum of the vesico-uterine peritoneum **8**, in the direction of the situs of rectus abdominis muscle aponeurosis **6**, detached from the left side, level at which it is perforated and fixed by means of another needle to the rectus abdominis muscle aponeurosis **6** on a distance of 2 cm.

During the operating time XIV, the vesico-uterine peritoneum suture **8** is carried out.

During the operating time XV, the rectovaginal peritoneum suture **10** is carried out.

During the operating time XVI, there are carried out the test pulling and ligating of threads **3** and **4** at the aponeurosis level, placing the uterus **13** into the normal anatomical position and oriented along the sagital direction.

During the operating time XVII, the abdominal wall is sutured in anatomic layers.

This method is also used in the case of a fibromatous uterus or in the one having benign ovarian tumours **14**, only after solving these pathologies, by carrying out myoctomy and cystectomy, respectively, or unilateral or blateral adnexectomy.

The use of sling **B** for isthmus fixation, made of a material consisting of polypropylene, that is passed extraperitoneally and surrounds the uterine isthmus **11**, and threads **3** and **4** for positioning and fixing the regions **r** and **s** which are fixed to the rectus abdominis muscle sheath **6**, a hormonally independent tissue, have the consequence of maximal reduction of the recurrence chances and to elimination of the pain syndrome.

Reinstatement of the uterus **13** in its normal anatomic position avoids the enlarging of the rectovaginal space and prevents the occurrence of rectocele or of eritrocele

CLAIMS

1. Medical instrument kit, according to the invention, comprising a box provided with some compartments that are constructively adequate to accommodate a scalpel, 6 Pean clamps, 4 Kocher clamps, 2 surgical scissors (**A**), a clamp (**B**) for anchoring the uterine isthmus, a sling (**C**) for isthmus fixation, 2 Farabeuf retractors and some resorbable and non-resorbable suture threads, of which the clamp (**B**) consists of a smooth rigid body (**1**) provided with two distal portions (**a** and **b**), inclined, starting in front of a distal bridge (**e**) which joins them up to their being joined by welding, thus forming a long rectilinear intermediate portion (**c**) with a decreasing width up to in front of a proximal end (**f**), in front of which it continues with a proximal portion (**d**), profiled in the shape of a semicircle, termineted with a blunt tip (**i**), in the proximity of which there is made an oval orifice (**j**), and in the immediate proximity of the bridge (**e**) to the distal portions (**a** and **b**) there are integrally joined some guiding rings (**g** and **h**), and the sling (**C**) for isthmus fixation consists of a body (**2**) made of a medically acceptable material, consisting of propylene in the form of a network, having some meshes (**k**), to whose end portions (**l** and **m**) there are tied one of some non-resorbable threads (**3** and **4**) made of polypropylene, provided with two of some free ends (**n**, **o**, **p** and **q**), this last mentioned body (**2**) being provided with two interior circular regions (**r** and **s**), a small one and a large one, respectively.

2. Kit according to claim 1, **caracterized in that** the length of the body (**1**) of the clamp (**B**) is of 25.0 cm, from the lower level of the rings (**g** and **h**) up to the proximal end (**f**) of the intermediate portion (**c**) this has a length of 23.0 cm and the blunt tip (**i**) is located at a distance of 17.0 cm in relation to the lower level of the rings (**g** and **h**).

3. Kit according to claim 1, **caracterized in that** the proximal semicircular portion (**d**) of the body (**1**) of the claim (**B**) is so arranged in the plane in relation to the intermediary portion (**c**), that between the latter and the farthest point in relation

thereto, and the blunt tip (**i**), respectively, of the proximal portion (**d**) there is a distance of 7.0 cm and 6.5 cm, respectively.

4. Kit according to claim 1, **characterized in that,** in the proximal portion (**d**) of the body (**1**) of the clamp (**B**), at a distance of 0.5 cm from the blunt tip (**i**) there is made an oval orifice (**j**) having a length of 0.04 cm and a width of 0.02 cm.

5. Kit according to claim 1, **caracterized in that**, the length and the width of the body (**2**) of the sling (**C**) for isthmus fixation have values of 25.0 cm and 1.1 cm, respectively, and the dimension of some meshes (**k**) of the non-resorbable material that the body (**2**) is made of is of 0.03 mm.

6. Kit according to claim 1, **caracterized in that** at a distance of 7.0 cm from the right end (**l**) of the body (**2**) of the sling (**C**) there is located the small interior circular region (**r**) near which, at a distance of 2.0 cm, there is situated the large interior circular region (**s**) locaterd at a distance of 13.0 cm in relation to the left side end (**m**), and the diametres of the small and large interior circular regions (**r** and **s**) are equal to 2.0 cm and to 2.5 cm, respectively.

7. Method of surgical treatment in the uterine pathology, according to the invention, carried out by means of the kit, as claimed in claims 1 ...6, comprises the following operating times:

- operating time I, wherein there is carried out, by means of the scalpel, a main median or lower transversal pubosubumbilical incision;
- operating time II, wherein there is carried out the fat tissue incision (**5**) up to the rectus abdominis muscle aponeurosis (**6**) along the median line or transversely, corresponding to the main incision;
- operating time III, wherein the incision is carried out along the median line of the parietal peritoneum (**7**);
- operating time IV, wherein there is carried out a transversal incision with a length of 4.5 ...5.5 cm of the vesico-uterine peritoneum (**8**), thereafter the

urinary bladder (**9**) is detached on a distance necessary in order to position the large interior circular region (**s**) of the body (**2**) of the sling (**C**);

- operating time V, wherein there is carried out an incision on a distance of up to 3.0 cm of the retrovaginal peritoneum (**10**), at the level of the uterine isthmus (**11**), by detaching the rectum (**12**) on a distance necessary in order to position the small interior circular region (**r**) of the body (**2**) of the sling (**C**)

- operating time VI, wherein there are built two parauterine tunnels (**t** and **u**) on the right and left side, respectively;

-operating time VII, wherein the body (**2**) of the sling (**C**) is positioned with the large interior circular region (**s**) on the anterior surface (**w**) of the uterine isthmus (**11**) at which level this is fixed with two non-resorbable threads, in order to prevent it from sliding;

- operating time VIII, wherein the ends (**o** and **p**) of the thread (**3**) tied to the right end portion (**l**) of the body (**2**) of the sling (**C**) are introduced by means of another clamp into the right hand tunnel (**t**) on the anterior surface (**w**) of the uterine isthmus (**11**) and taken out therefrom on the posterior surface (**v**) of the uterine isthmus, thereafter they are wound at the level thereof on this posterior surface (**v**), fixing the small interior circular region (**r**) at this level, thereafter it penetrates into the left hand tunnel (**u**) on the posterior surface (**v**), coming out anteriorly to the uterine isthmus (**11**);

- operating time IX, wherein the ends (**p** and **q**) of the thread (**4**) tied to the left hand end portion (**m**) of the body (**2**) of the sling (**C**) are brought into the position in which they are passed over the small interior circular region (**r**), being externalized on the anterior surface (**w**) of the uterine isthmus (**11**), under the parietal peritoneum (**7**), which is surrounded and anchored as in a hammock to the body (**2**) of the sling (**C**);

- operating time X, wherein the small interior circular region (**r**) is fixed to the posterior surface (**v**) of the uterine isthmus (**11**) with two non-resorbable threads;

- operating time XI, wherein the situs is prepared for fixing the body (**2**) of the sling (**C**), halfway the distance on which the pubosubumbilical incision is made;

- operating time XII, wherein the ends (**n** and **o**) of the thread (**3**) in the right hand end portion (**l**) are introduced through the orifice (**j**) provided in the proximity of the blunt tip (**i**) of the proximal portion (**d**) of the clamp (**B**) for anchoring the uterine isthmus (**11**), by means of which it penetrates extraperitoneally in the direction of the situs of the rectus abdominis muscle aponeurosis (**6**), detached from the right side, level at which it is perforated and fixed by means of a needle thereto;

- operating time XIII, wherein the ends (**p** and **q**) of the thread (**4**) in the left end portion (**m**) introduced through the orifice (**j**) provided in the proximity of the blunt tip (**i**) of the proximal portion of the body (**2**) of the clamp (**B**) for anchoring the uterine isthmus (**11**) with which it penetrates extraperitoneally in the direction of the situs of the rectus abdominis muscle aponeurosis (**7**), detached from the left side, level at which it is perforated and fixed by means of a needle thereto;

- operating times XIV and XV, wherein there are carried out the vesico-uterine peritoneum (**8**) and the rectovaginal peritoneum (**10**) sutures, respectively;

- operating time XVI, wherein there are carried out the test pulling and the ligation of the threads (**3** and **4**), respectively, at the aponeurosis level, placing the uterus (**13**) into position and oriented along the sagital direction.

8. Medical instrument kit, according to claims 1... 6, which is used for applying a surgical treatment of the stage I, II or III uterine prolapse, of moderate or advanced cystocele or of rectocele for fixing the uterine isthmus in its anatomical extraperitoneal position, by peritoneal route.

9. Kit for surgical treatment in the uterine pathology according to claims 1...6, which is used for a treament, wherein the surgical approach is exclusively on the

extraperitoneal route, of the uterine prolapse stage I, II or III, of the moderate or advanced cystocele or of the rectocele associated or not with another benign uterine or adnexal pathology.

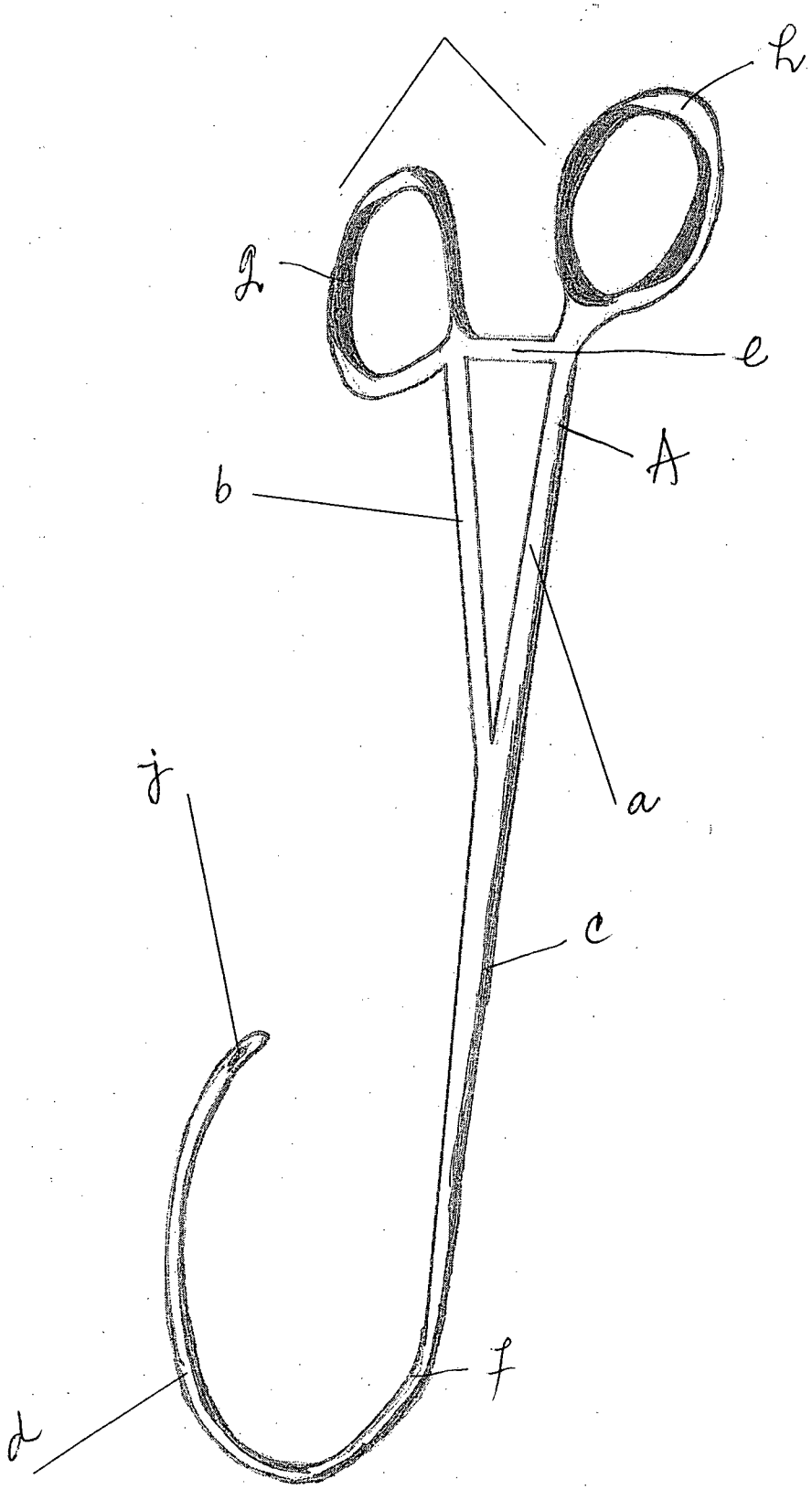

Fig. 1 Vederea din fata a pensei SABA

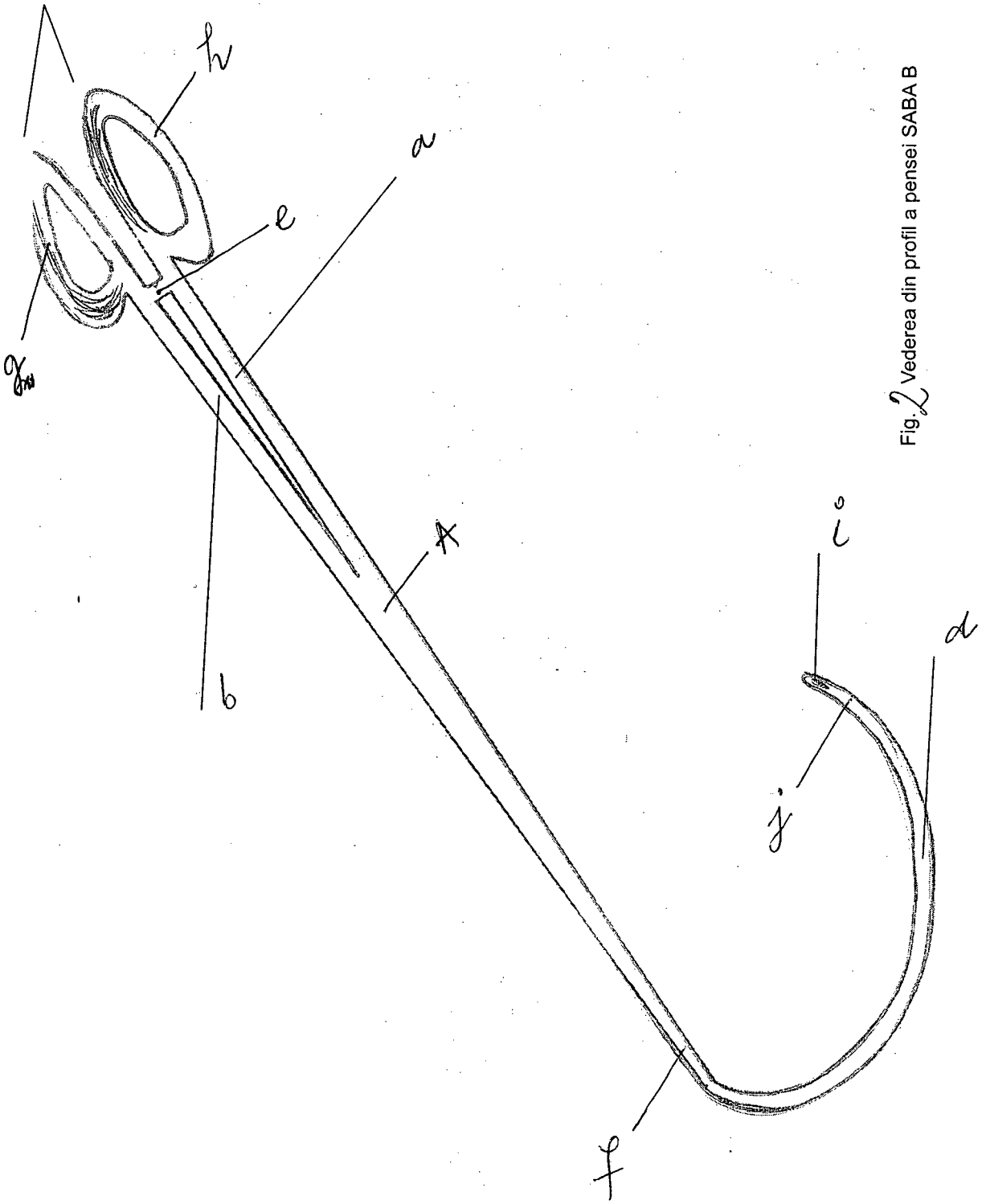

Fig. 2 Vederea din profil a pensei SABA B

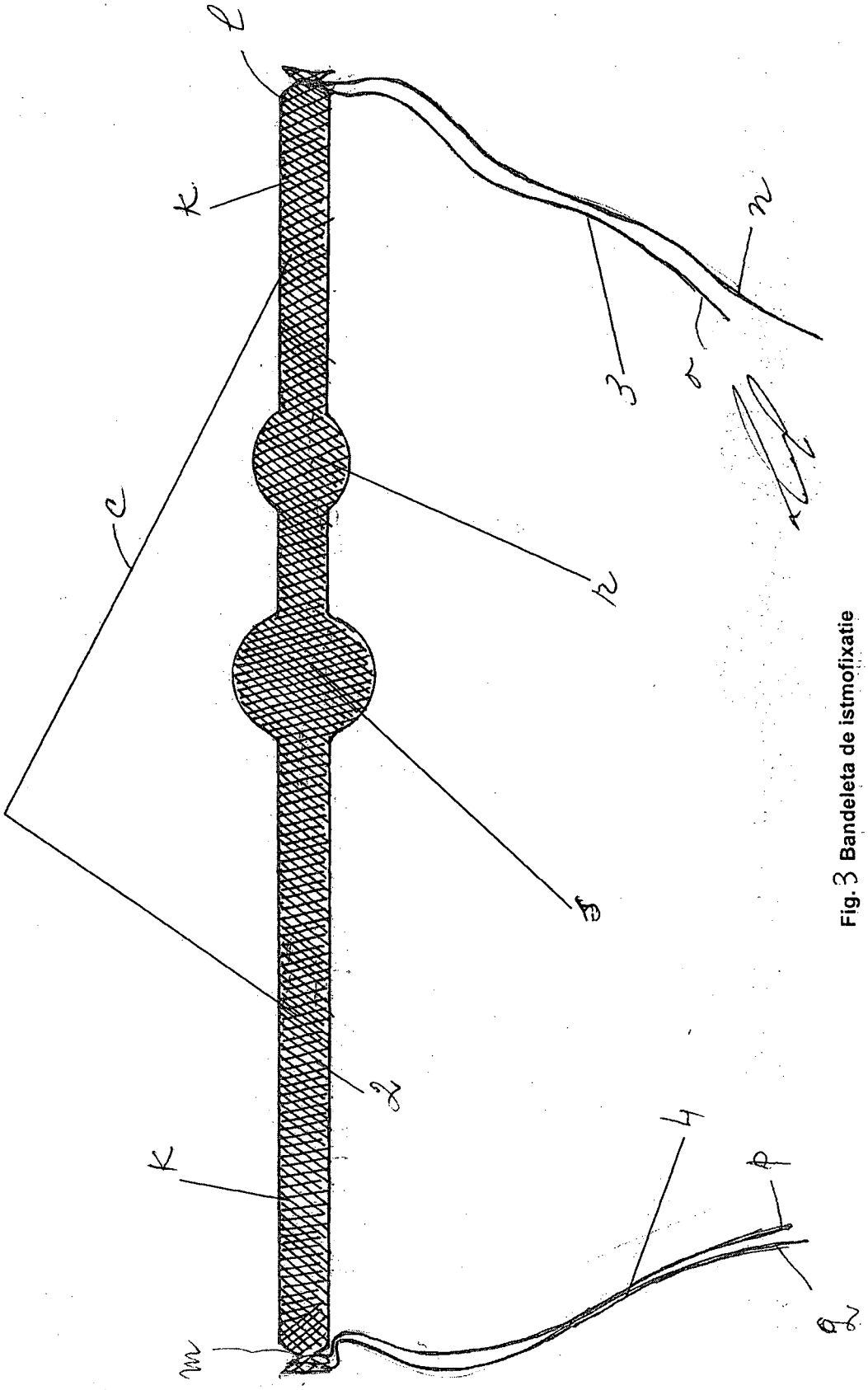

Fig. 3 Bandeleta de istmofixatie

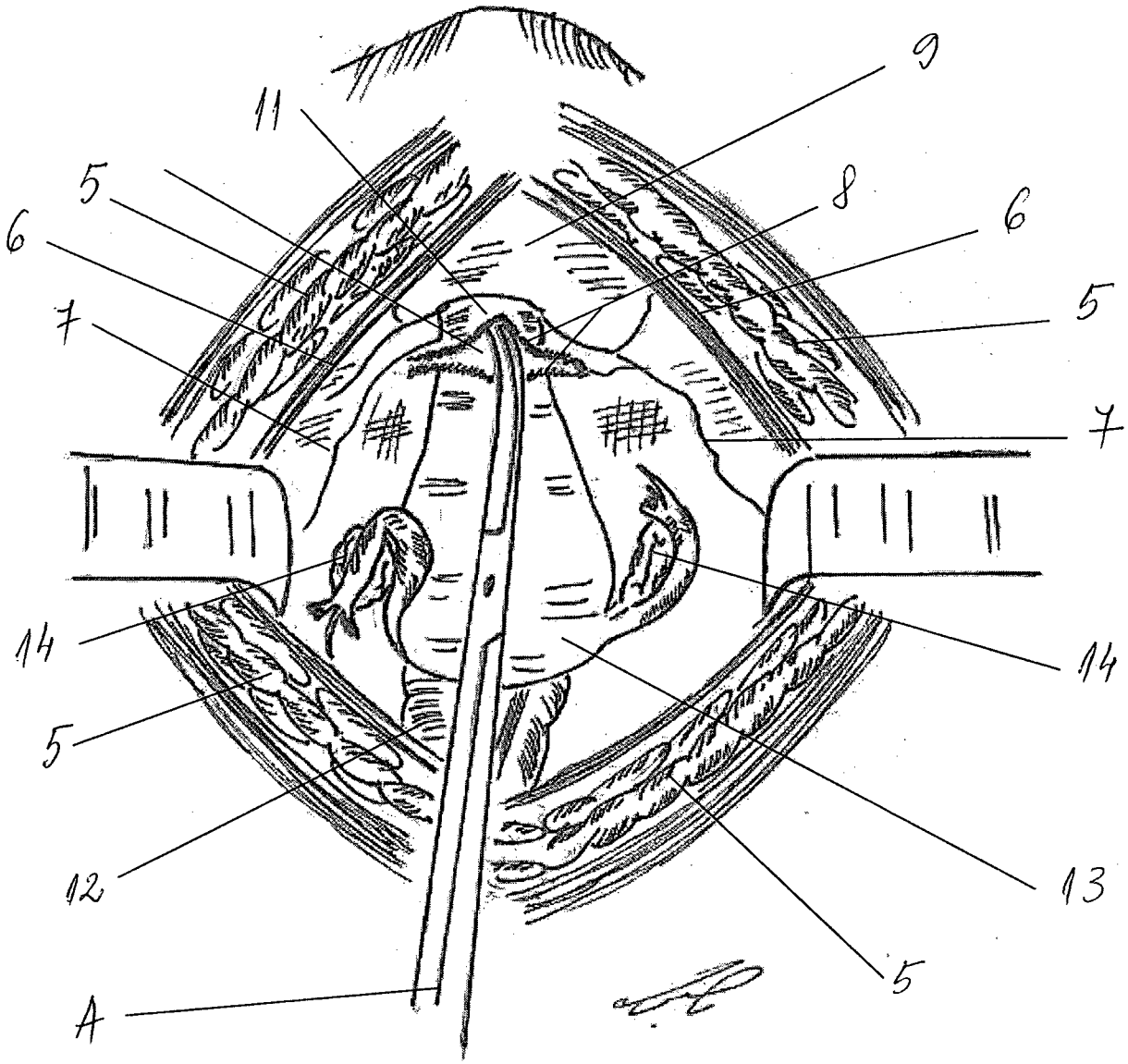

Fig.1 Incizia transversala a peritoneului vezico-uterin cu decolarea usoara a vezicii urinare

Fig. 4

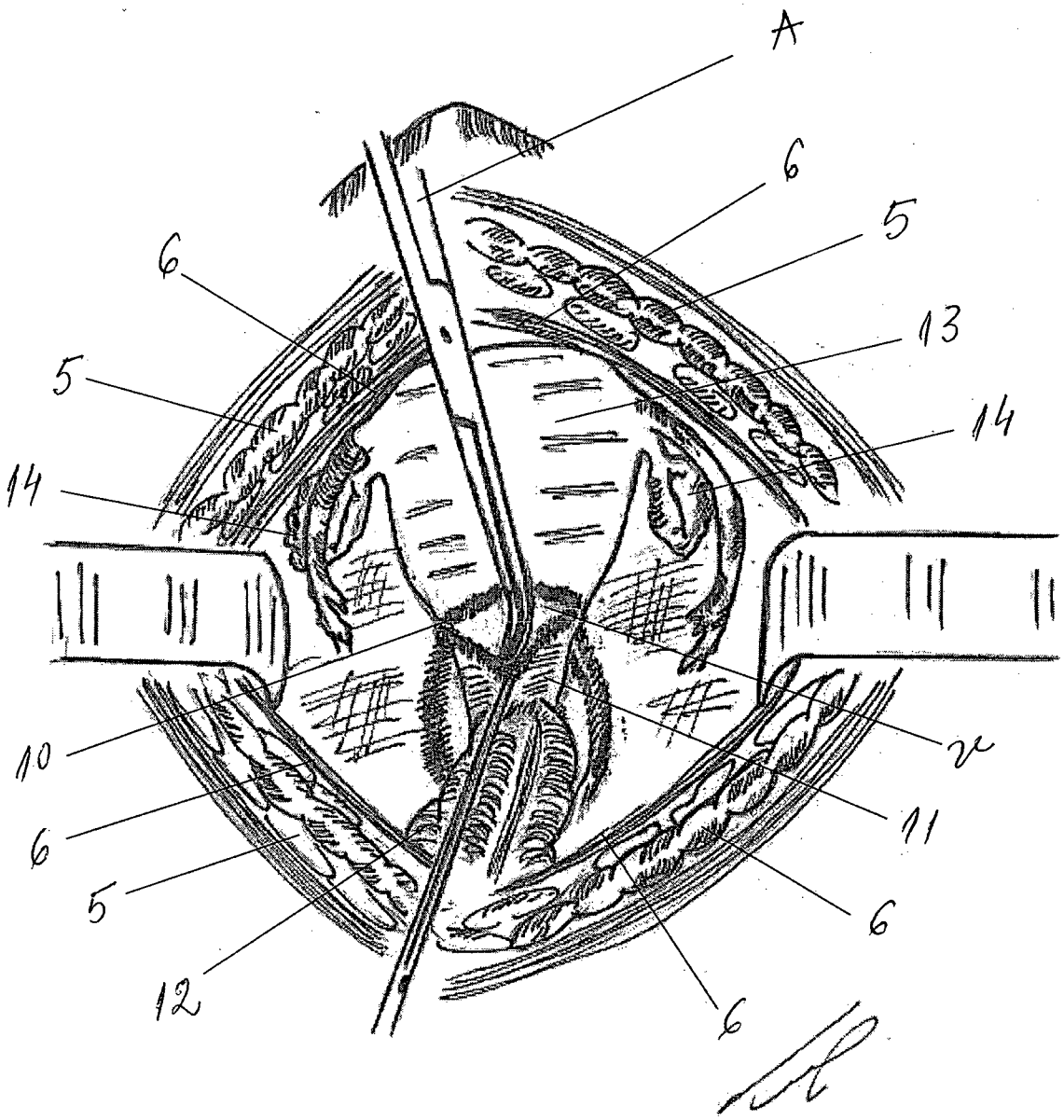

Fig.: Incizia peritoneului recto-vaginal cu decolarea rectului

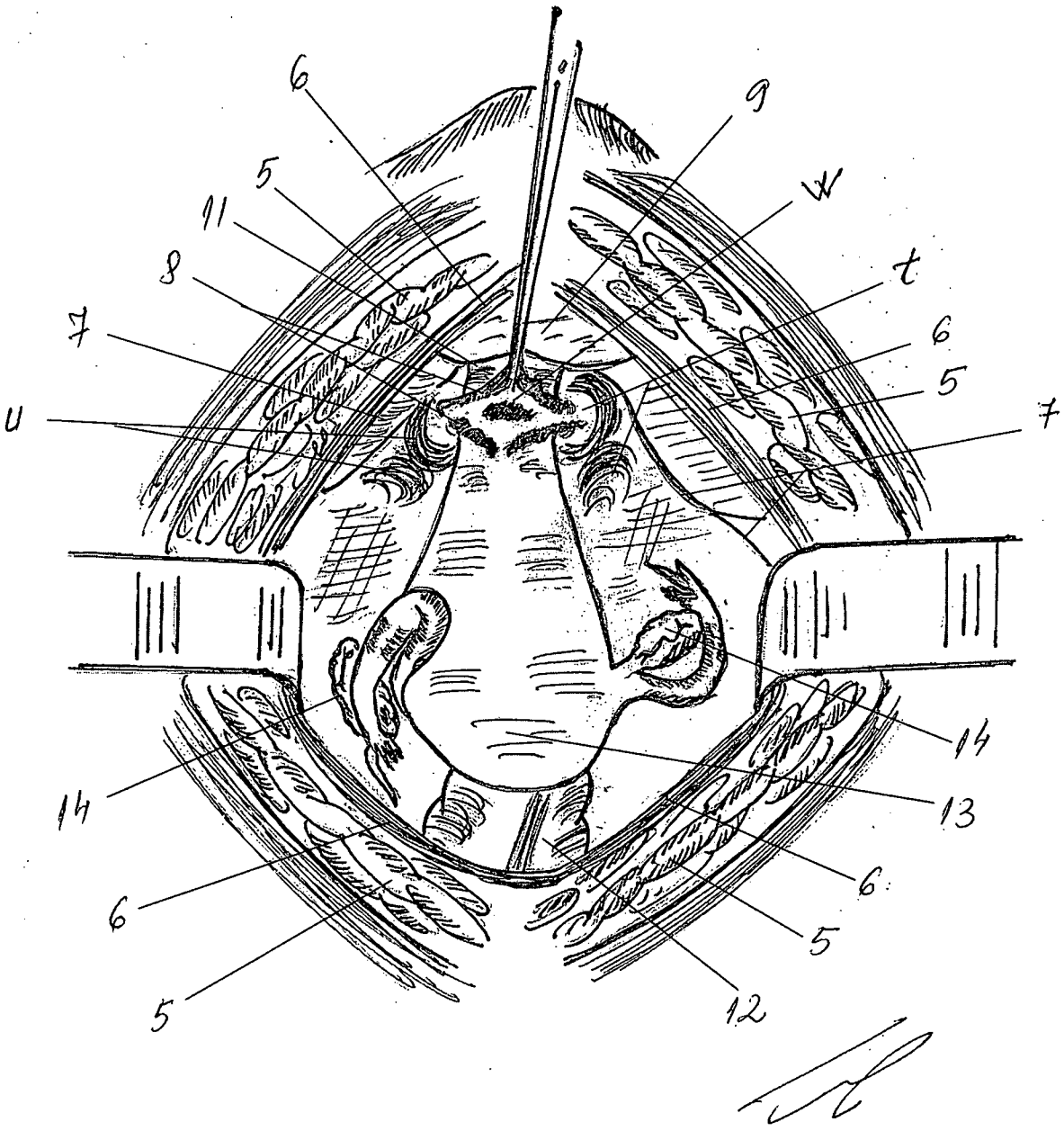

Fig. 6 Efectuarea a doua tunele parauterine

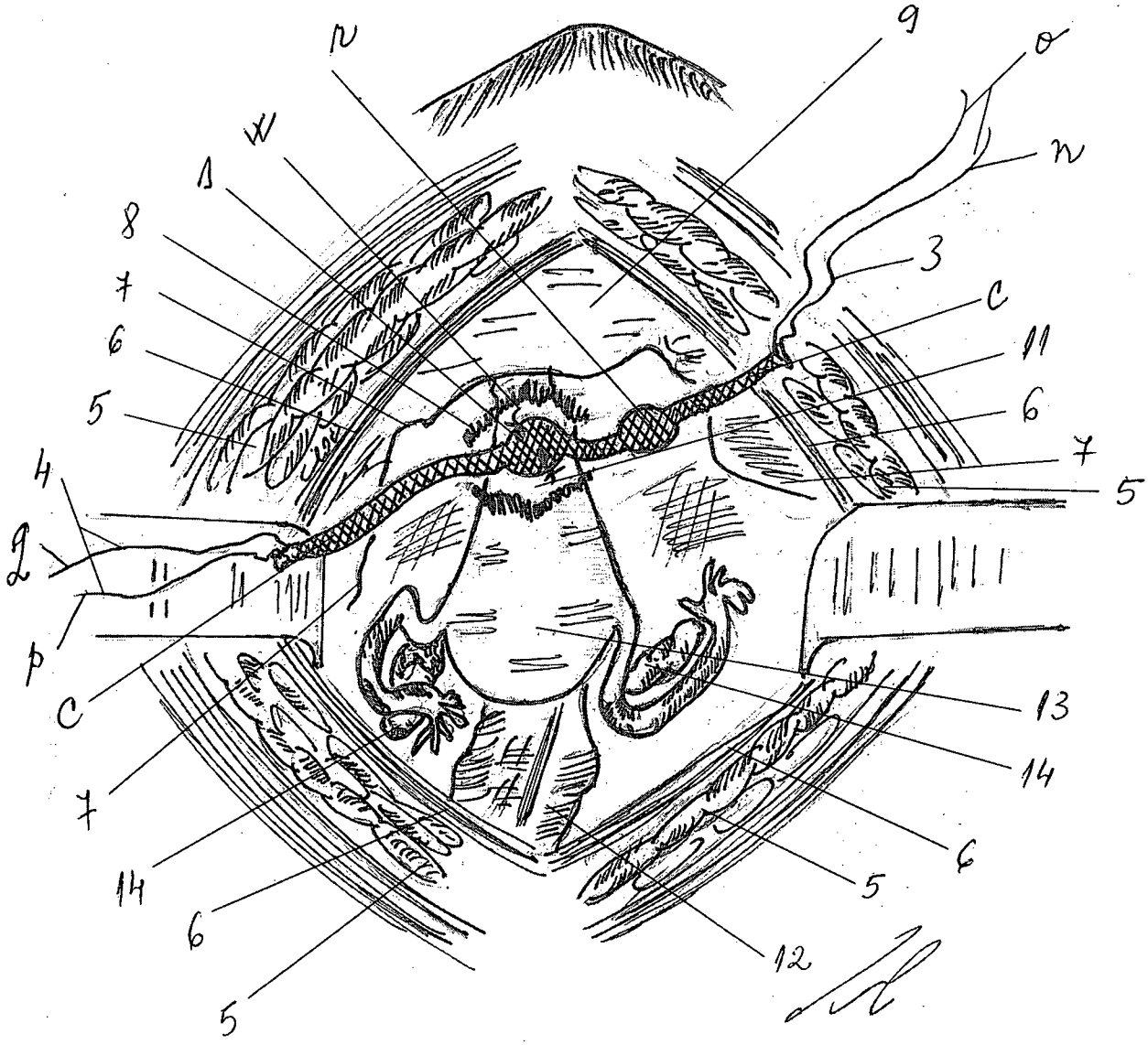

Fig.7 Fixarea bandeletei de istmofixatie cu partea ovala mare pe fata anterioara a istmului uterin

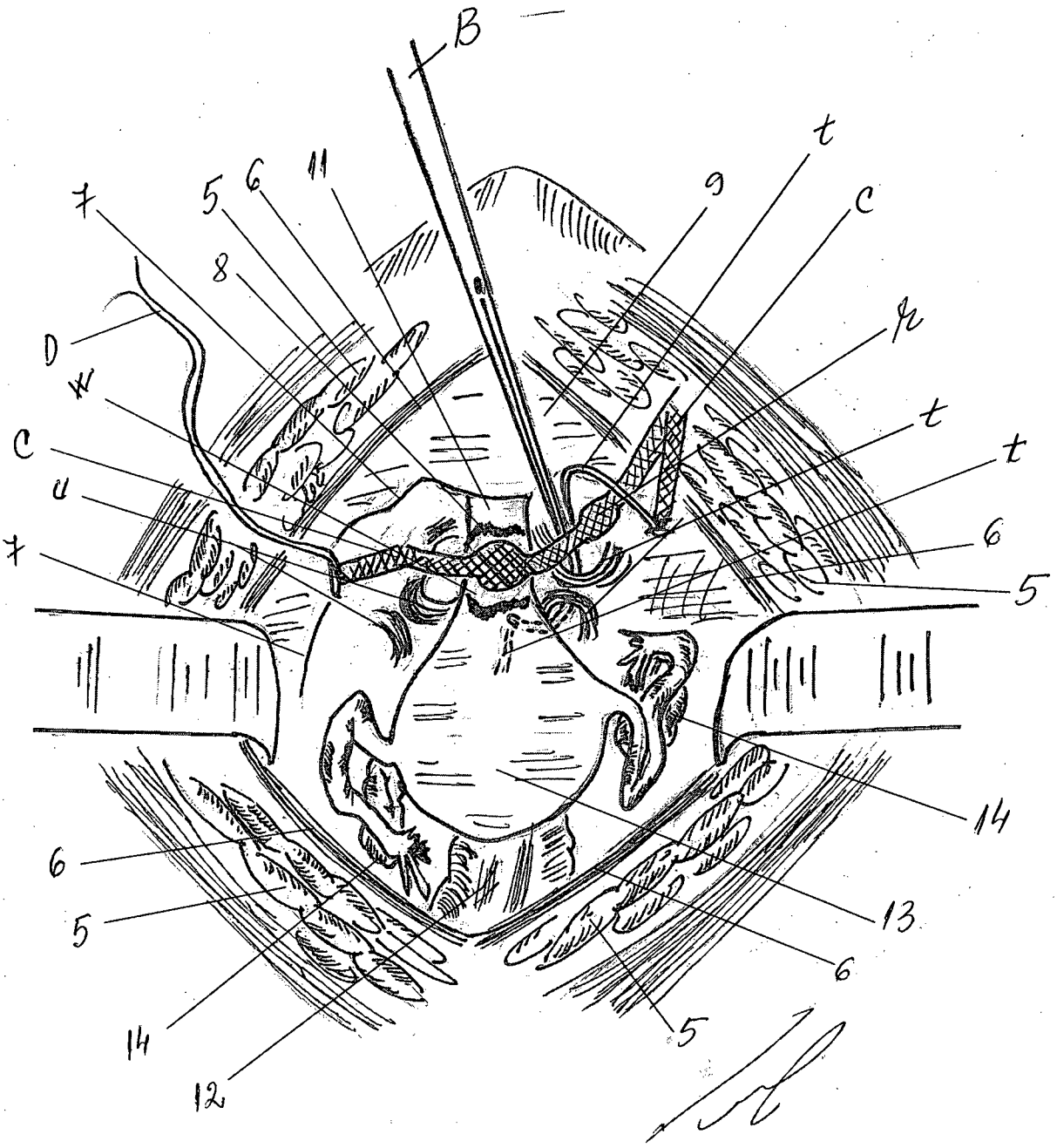

Fig. 8 Punerea partii ovale mici pe fata posterioara a istmului uterin prin trecerea capatului firului drept prin tunelul drept pe urma prin tunelul stang si iesirea lui pe fata anterioara a uterului

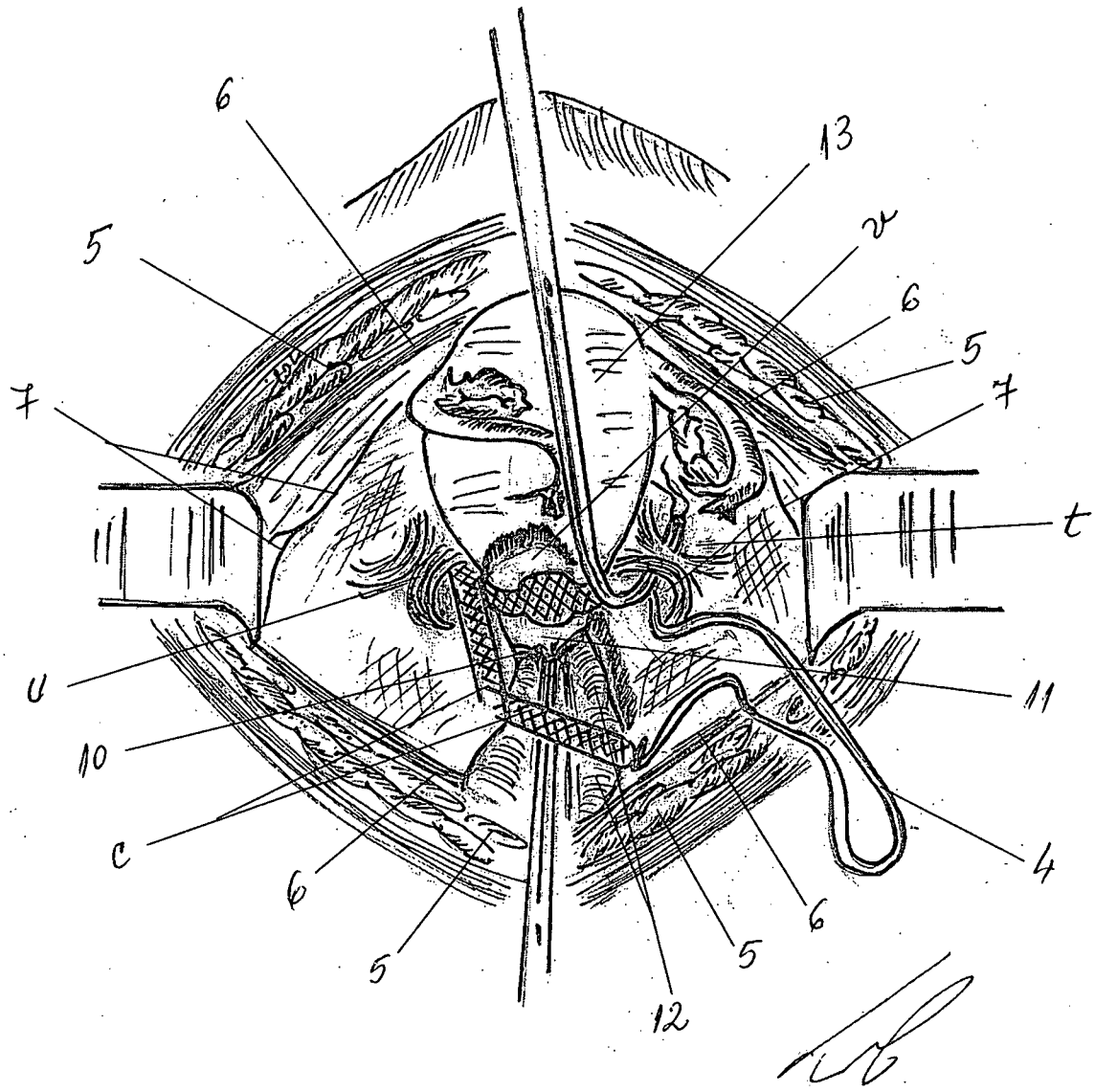

Fig. 9 Capatul firului bandeletei stangi, patrunde in tunelul din partea stanga apoi trece peste bandeleta din partea opusa si prin tunelul din partea dreapta dupa aceea iese pe fata anterioara a istmului subperitoneal

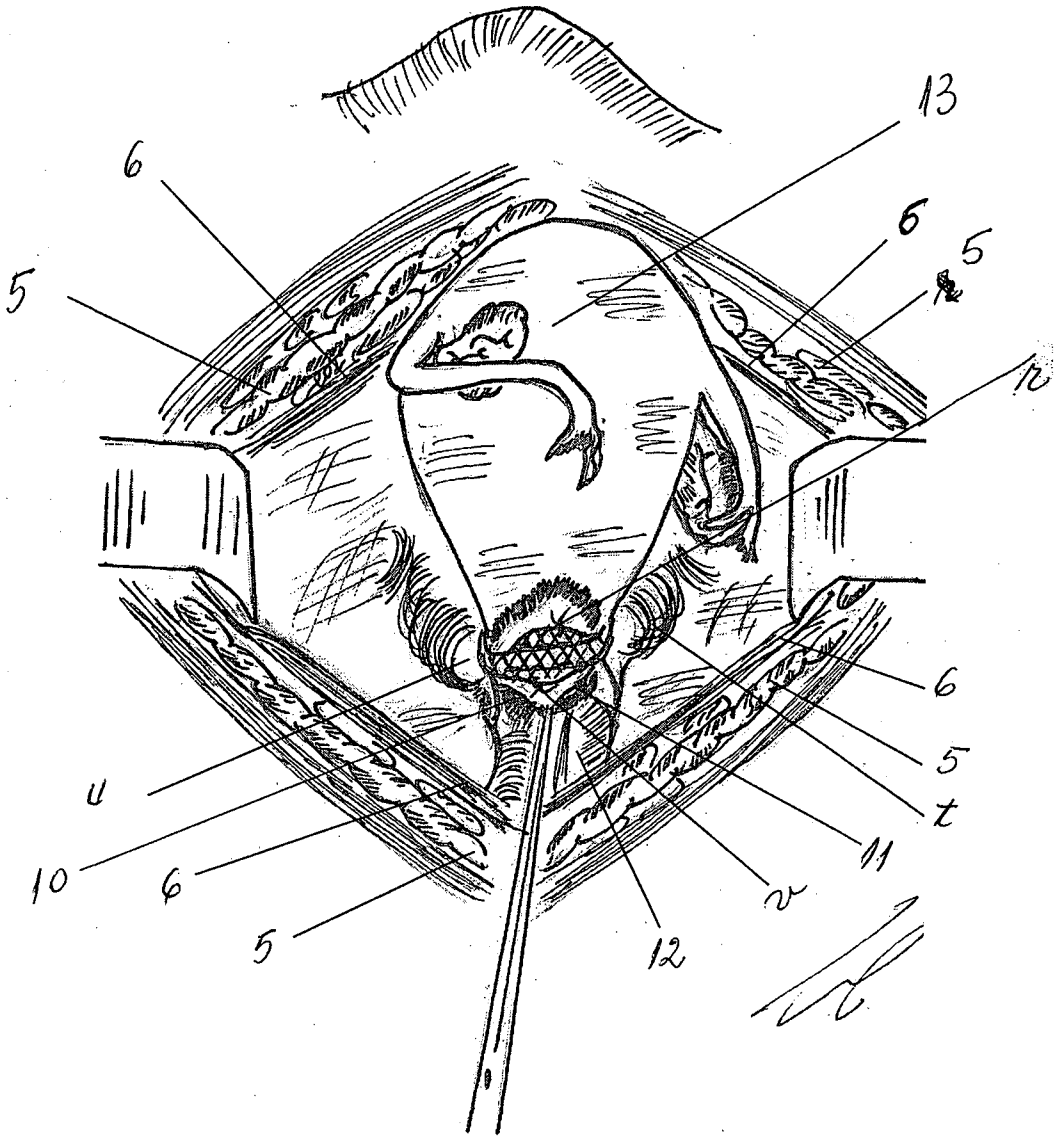

Fig. 10 Fixarea bandeletei de istmofixatie cu partea ovala mica pe fata posterioara a istmului uterin

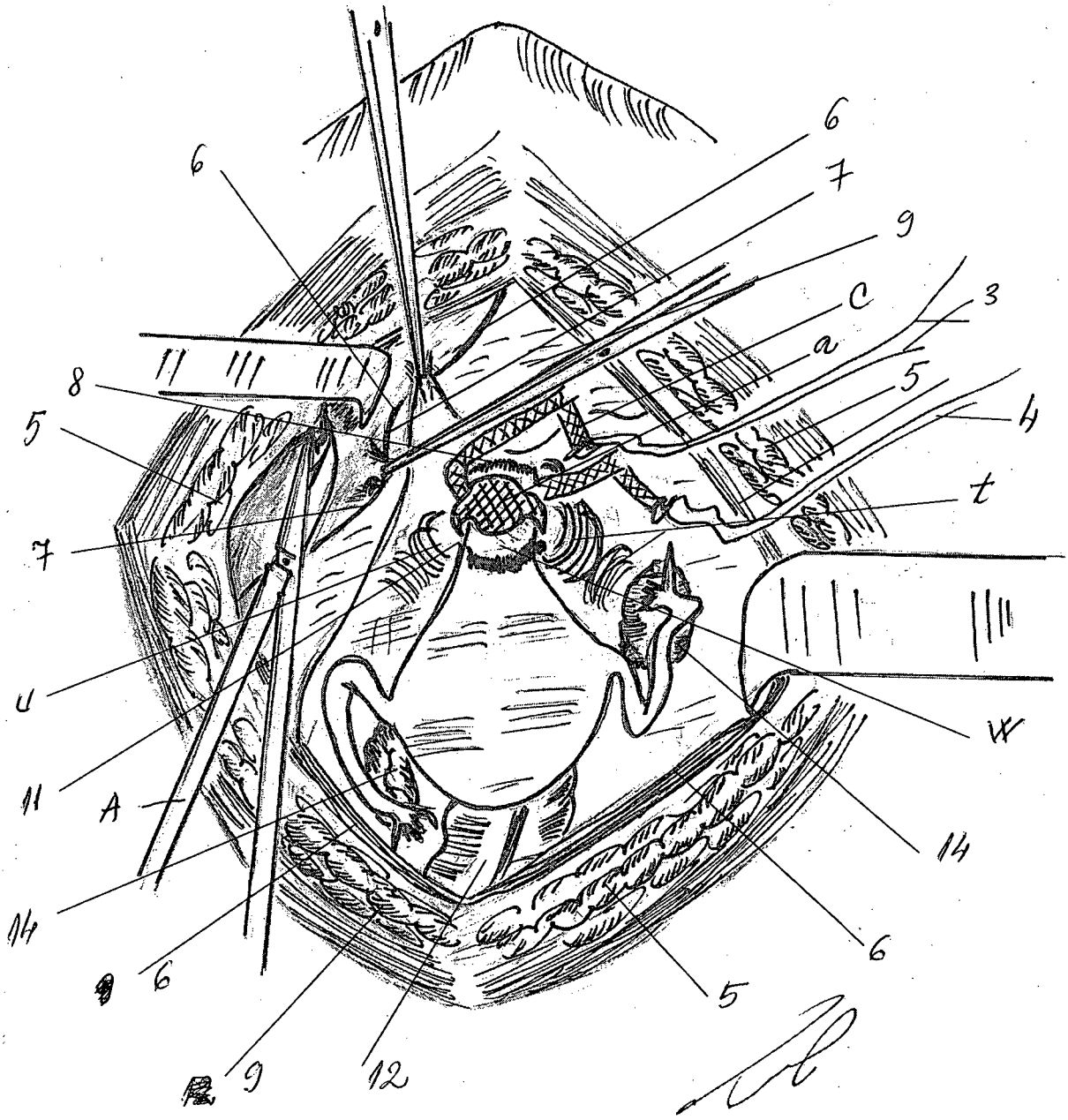

Fig. 11 Decolarea laterala a aponevrozei muschilor drepti abdominali

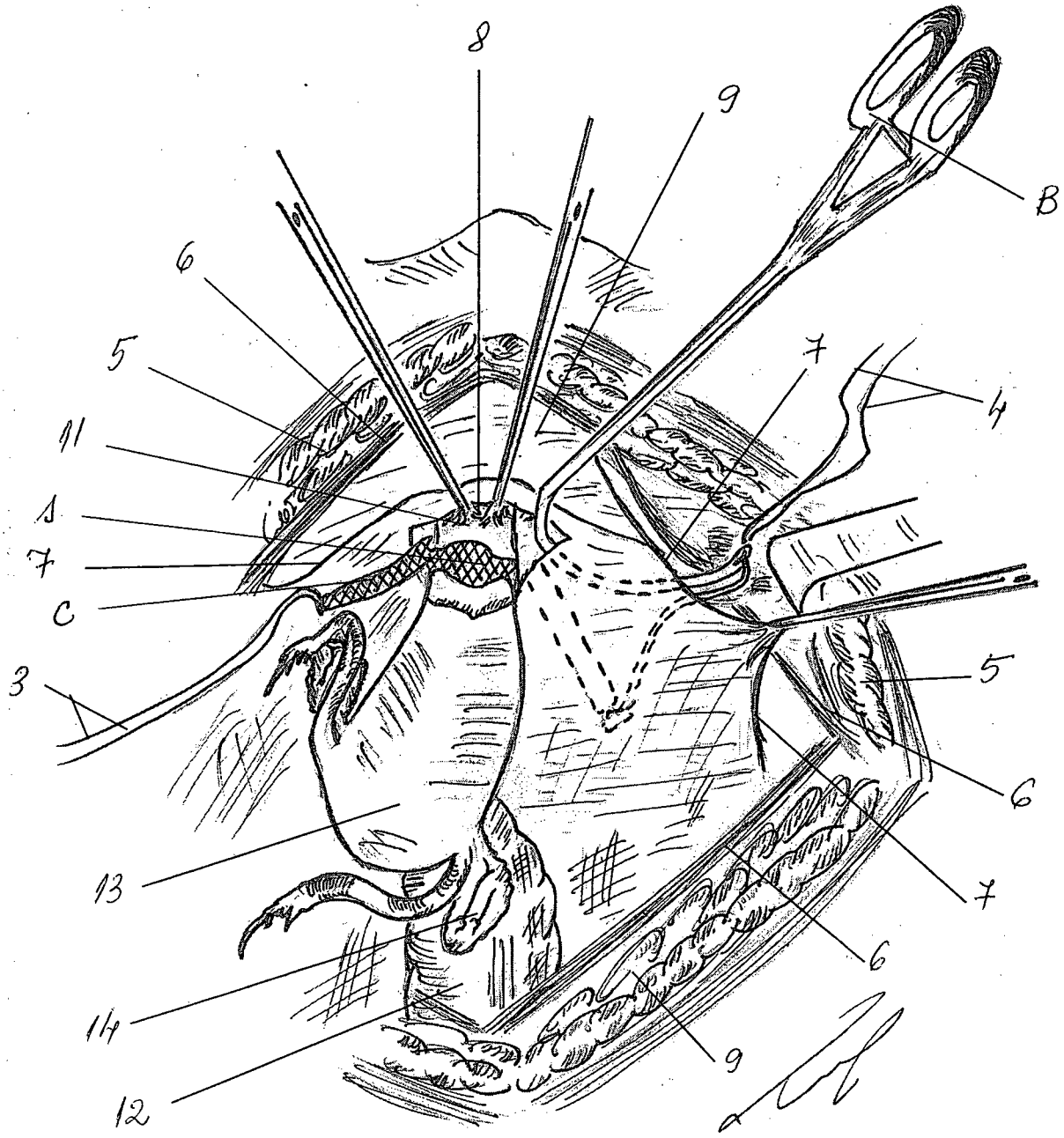

Fig. 12 Patrunderea pensei SABA pe partea dreapta extraperitoneal pana la

INTERNATIONAL SEARCH REPORT

International application No
PCT/RO2017/000001

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61B50/33
ADD. A61B50/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2007/007339 A1 (DESPRES JEAN-ALBERT [FR]) 11 January 2007 (2007-01-11) paragraph [0013]; figures 4-5	1-6,8,9
X	US 2007/205123 A1 (BETTENHAUSEN TODD E [US] ET AL) 6 September 2007 (2007-09-06) paragraph [0071]; figures 5,7 paragraph [0078] - paragraph [0079]	1-6,8,9
X	US 2006/124486 A1 (FAUST VALENTINE T III [US] ET AL) 15 June 2006 (2006-06-15) figures 1-3	1-6,8,9

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
17 November 2017	28/11/2017

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Hausmann, Alexander

INTERNATIONAL SEARCH REPORT

International application No.
PCT/RO2017/000001

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [X] Claims Nos.: 7
because they relate to subject matter not required to be searched by this Authority, namely:

The method defined in claim 7 is a method of treatment of the human or animal body by surgery. No international search and no preliminary examination are required for such methods (Art. 17(2)(a)i, Rule 39.1(iv); Art. 34(4)(a)i, Rule 67.1(iv), PCT GL 9.08-9.10). See also Rule 43 bis PCT.

2. [ ] Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. [ ] Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. [ ] As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. [ ] As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. [ ] No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

[ ] The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

[ ] The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

[ ] No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/RO2017/000001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2007007339 A1	11-01-2007	AT 442096 T	15-09-2009
		CA 2551333 A1	04-01-2007
		EP 1741401 A2	10-01-2007
		FR 2887759 A1	05-01-2007
		US 2007007339 A1	11-01-2007
US 2007205123 A1	06-09-2007	NONE	
US 2006124486 A1	15-06-2006	US 2006124486 A1	15-06-2006
		WO 2006098785 A1	21-09-2006