

International Standard **Colored Edition**

# A Practical Guide to Obstetrical & Gynecological **Instruments** For Nurses



## **Special Features**

- More than **200** Instruments Covered
- Important **Obstetrical and Gynecological Procedures, Tray Settings Included**
- Includes an Exclusive Chapter on **Sutures and Ligatures**
- Supplemented with **60+** Viva Voce questions



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*Foreword*  
**Devi Buela Janet**

**Chilumula Chaithanya**



# A Practical Guide to Obstetrical & Gynecological **Instruments** For Nurses

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Nursing Knowledge Tree

An Initiative by CBS Nursing Division

**Foreword**  
**Devi Buela Janet**



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# Preface

**All this also comes from the Lord Almighty,  
Whose plan is wonderful, Whose wisdom is magnificent.**

**Prov: 17:28**

It is my immense pleasure to present this practical guide for students of nursing. It was my long-time desire to write a book, which could extensively illustrate the different Obstetrical and Gynecological (OBG) instruments to help the students understand their uses in Department of Obstetrics and Gynecology in all healthcare settings.

This practical guide aims to provide the basic knowledge about instruments that are used practically in the Department of OBG. This practical guide is written in a simple and easy language, which can be easily understood by the students. The text is supported by images to impart clear idea about the instruments. All the instrument are covered under various parameters, i.e, indication history, uses, etc. This practical guide is equally useful for all nursing students and faculty members.

I have put in every possible effort to collect and complete all the relevant information for the benefit of students.

**Chilumula Chaithanya**

# Special Features of the Book

## ARTERY FORCEPS



Real-time images of all the instrument of Obstetrics and Gynecology Clinical setting included for better practical guidance

Important points related to respective instruments covered under the boxes named **Points to Remember**

## Points to Remember

- While using sponge-holding forceps, firmly press it downward.
- This instrument is used for holding sponge or a gauze piece for painting the area before operation.
- This also helps during tissue dissection when used as sponge on holder.

## Nursing Knowledge Tree

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## Also Know

- Take advantage of all grips
- No arbitrary commitment to a single scalpel grip,
- Select the appropriate one by weighing the advantages and limitations.

Points covered under **Also know** need to be taken care of while handling a particular instrument

**Indications** of all the instruments presented in diagrammatic and bulleted form for quick and easy implementation

## Indications/Uses

- This needle is used for producing pneumoperitoneum (putting air or CO<sub>2</sub> in the peritoneal cavity) for laparoscopy.
- The tip of the needle is round, which has the capacity to retract the rectus sheath and allow outer sharp bevel to pierce and enter the peritoneal cavity.
- This prevents damage to deeper structures.

**Background**

Laparoscopic tubal ligation is a surgical sterilization procedure where a woman's fallopian tubes are either clamped and blocked or severely sealed. Both methods prevent eggs from being fertilized. Tubal ligation is a permanent method of sterilization.

**Historical Background** of each and every Instrument has been covered

Every instrument is supplemented with its detailed **description** in bulleted format for easy and quick understanding

**Description**

- Chromic gut sutures 1-0, are absorbable sterile surgical sutures composed of purified connective tissue (mostly collagen).
- They are packaged in a solution of 89% isopropanol, 10% water and 1% triethanolmine.

**TRAY SETUP FOR NORMAL DELIVERY**

Trolley for Normal Vaginal Delivery (NVD)



Separate chapter on **Important Tray Settings** included

Practical approach questions have been covered under separate Chapter **Viva-Voce**

**Chapter 17**

**Viva-Voce Questions**



1. What is hemostatic forceps?
  - a. Allis tissue forceps
  - b. Artery forceps
  - c. Kocher's forceps
  - d. Babcock's forceps

**Ans.** (b) Artery forceps

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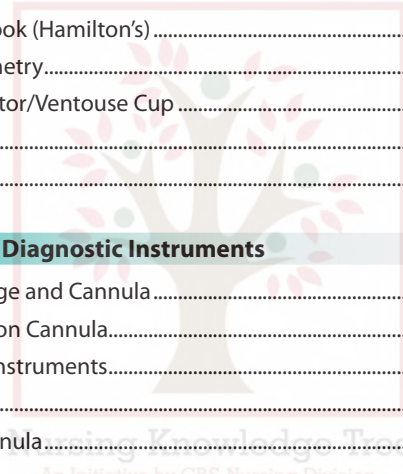
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# Chapter 13

## Destructive Operation Instruments



### OBSTETRIC HOOK WITH CROCHET



#### Background

This instrument was invented by Braun.

#### Description

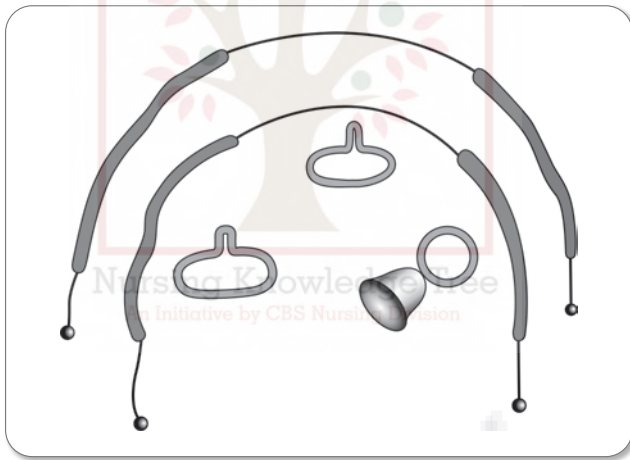
- It is a steel hook with a sharp-pointed curved blade to grab the base of the skull for extraction. It consists of a long handle which is 30 cm in length.
- The trunk is utilized to extract the fetal head. The blunt hook is inserted through vagina or abdomen of the mother around the neck of the fetus or under the shoulder, respectively.

#### Indications/Uses

- Hook is used to apply groin traction in dead fetus.

- Hook is also used to pull down the leg of a dead fetus in transverse lie.
- Crochet is used to apply traction on fetal lower jaw, orbit, foramen magnum, etc. to extract decapitated head.
- Crochet is also used to apply traction on fetal head after craniotomy.
- It is also used to alter the position of the fetus as well as to fasten the delivery of breech.
- Blunt hook was often used in combination with crochet (crochet is a steel hook with sharp-pointed end).
- After the initial breaking of the skull with perforator, the crochet was inserted into the cranium and grab to hold the base of the skull for extraction.

### BLOND-HEIDLER'S DECAPITATION SAW



#### Background

In 1923, Blond and Hans Heidler (1889–1955) invented the Blond-Heidler saw, an obstetric tool used to remove a dead fetus.

#### Description

- This is an alternative and probably the softest device for decapitation. It measures about 40–45 cm in length.
- The fetus is brought down in order to facilitate access and exposure of the neck, the saw is rotated around the neck by keeping the handles, closed together, so that injury to the vagina is prevented and the neck can be extracted with few firm strokes.

## Point to Remember



Delivery of the trunk is done straightforward and the aftercoming head is extracted by grasping the stump with a heavy vulsellum.

## BREECH HOOK WITH CROCHET



### Description

- It measures about 31 cm in length and 5.2 cm in width. It is a metal instrument, which has curves at both the end.
- One end is accurately curved called crochet and other end is wider and gradually bent that is breech hook.

### Indications/Uses

- **Crochet:** It is used to hook down a decapitated head through mouth or hole in skull.
- **Hook:** It is used to put traction on groin in case of impacted breech of a dead fetus.
- It is used to change the position of breech.

## SIMPSON'S PERFORATOR



## Background

This instrument was invented by Sir James Simpson.

## Description

- It is long, stout, straight instrument having blades, long shanks, handles with two locks.
- End of the two blades are flat and triangular with sharp cutting edges and proximal end has a stout handle that has a spring lock inside to keep the blades opposed when no force is applied to handle.
- It measures about 28.5 cm in length.

## Indications/Uses

- Craniotomy
- Cranioclast—crushing of the cranium.
- Cephalotripsy—crushing of the whole head including base of the skull.
- Hydrocephalus, retained after coming of the head in dead fetus.
- Cephalopelvic disproportion (CPD) with dead fetus.
- Impacted malpresented dead fetus in mento-posterior and brow presentation.
- Fetal evisceration of thorax/abdomen.

## CRANIOCLAST



## Background

This instrument was invented by Dr James Simpson in 19th century and later modified by others. It is a Greek word Kranion means “head or skull” and Kiastes means “breaker”.

## Description

- It is a strong forceps with black wood attached to metal handles, consisting of a straight blade and a curved blade attached by a metal spacer and a wing nut.
- Both instruments are combined to form a 42 cm long cranioclast.

### Indications/Uses

- Used to crush the vault and base of dead fetal skull for extraction thereafter.
- Can be with or without cephalotribe

### DREW-SMYTHE CATHETER

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### Background

Drew-Smythe catheter was invented by Henry James Drew-Smythe (1891–1983), a Bristol surgeon.

### Description

- It is an S-shaped instrument with a side opening to drain liquor amnii.
- It has a spring-loaded stylet with a blunt tip.

### Indications/Uses

- It is used in high amniotomy, in case of polyhydramnios.
- It is also used to drain a hydrocephalic head through a spina bifida in case of a breech delivered up to the head.

### CEPHALOTRIBE

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## Background

This instrument was invented by James Simpson.

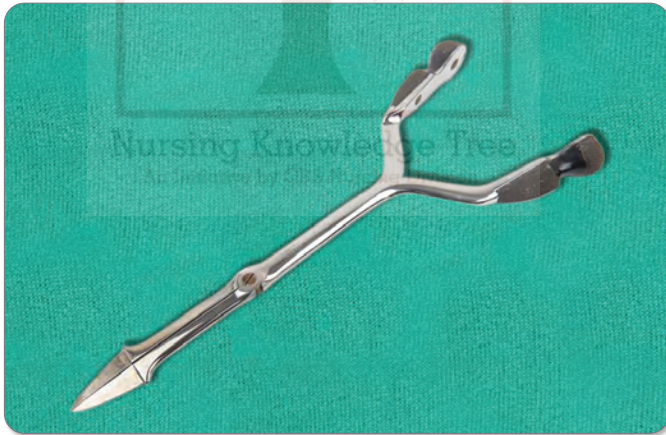
## Description

- It is a 42 cm long instrument made of three strong blades, one central and two lateral, and both are joined with a screw handle.
- The central serrated blade is passed through the perforation hole in the skull while the two other blades are placed on the sides of the head.

## Indications/Uses

- This instrument is used to crush the vault and base of fetal skull after craniotomy.
- It is used to extract fetal head.
- It is also used to extract head of fetus during obstructed labor.
- Hydrocephalus.

## OLDHAMS PERFORATOR



## Background

This instrument was designed by Dr William Smellie and it was manufactured by instrument makers Arnold and Son.

## Description

- It is a long instrument with long blades that have triangular cutting edge and only one shoulder.

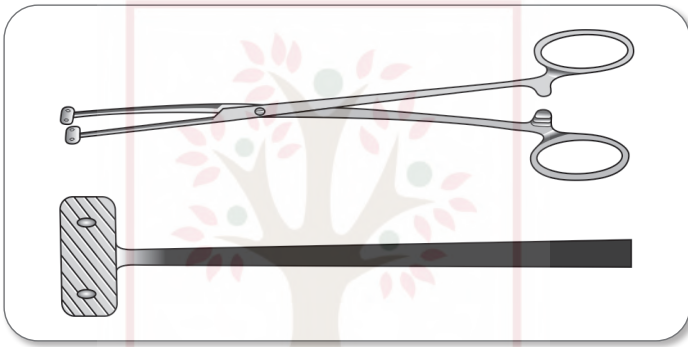


- The blades have outer cutting edges and they open when the stout handles are moved apart.
- There is no spring or lock.

### Indications/Uses

- This instrument is used in craniotomy.
- It is also used in evisceration.

## WILLET SCALP TRACTION FORCEPS



### Background

This instrument was invented by Bellary Willett (1899–1932). He was a French surgeon.

### Description

- The forceps have blades with T-shaped end having oblique serrations.
- One of the blades has two tiny teeth lying side by side which fit inside two holes on the other blade to achieve a secure grip on fetal scalp which is made further stronger by a ratchet lock on the handles.
- It measures about 19 cm in length.

### Indications/Uses

- It is used to control bleeding due to type I/II placenta previa.
- It is used to give traction on the fetal head after craniotomy, to fasten delivery.
- In olden days, it was used to give scalp tracts to deliver fetal head during cesarean section (CS).

## DUBOIS EMBRYOTOMY SCISSORS



### Background

This instrument was invented by Dr Emil du Bois-Reymond (1818–1896). He was a German scientist.

### Description

- The scissors measure about 27 cm long, curved flat and rather stout.
- This instrument is used in spondylotomy—in transverse impaction of fetus.

### Indications/Uses

- It is used in evisceration—in dystocia, enlarged organs, fetal ascites
- It is also used in decapitation—removal of head.
- It is used in cleidotomy in shoulder dystocia, in CPD, and in dead fetus to cut the clavicle.

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# A Practical Guide to Obstetrical & Gynecological Instruments For Nurses

## Salient Features

- This Practical Guide is highly useful for all the nurses, especially student nurses enrolled in *GNM, BSc, Post Basic and MSc (Obstetrics and Gynecological Nursing)* courses.
- Details of Instruments have been extensively covered as per the INC syllabus.
- All Instruments images used are of high quality, simple and clear for their quick recognition during practical spotting.
- All the Instruments are covered under different levels, like their Historical Background, Description, Indications or Uses for their detailed understanding and implementation in clinical settings.
- *Points to Remember Boxes* carry points which need to be taken care of while handling a particular instrument.
- A separate chapter on *Important Tray Settings* of Obstetrical and Gynecological procedures is included.
- Practical approach questions are covered under separate Chapter on *Viva Voce*.

## About the Author



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Since then she has 15 years of teaching experience. She also has HAAD (Health Authority of Abu Dhabi) license. She worked as a Registered Nurse in Abu Dhabi, published Research Articles in Indian Journal of Applied Research and also received the certificate of achievement among top ten women leaders in education industry by Higher Education Review. She has also attended various National and International conferences and workshops and in addition to this, she also holds a membership in TNAI.



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