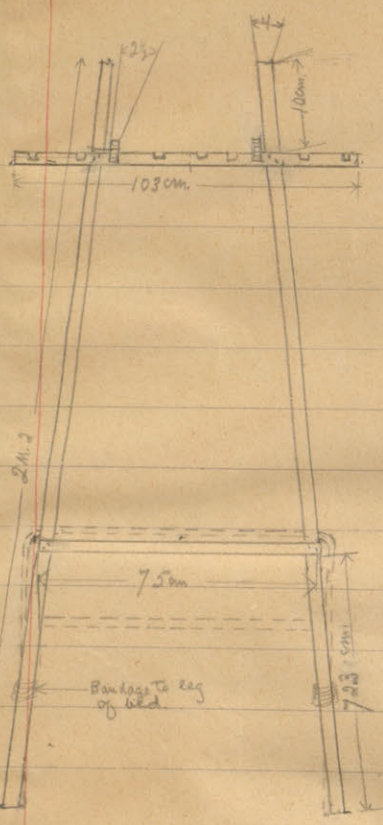
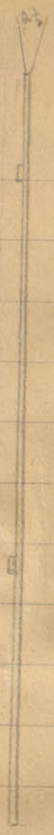
W. G. Penfield.
American Red Cross Hospital
6 Rue Piccini
Paris.

Peter Bent Brigham Hospital
Boston.

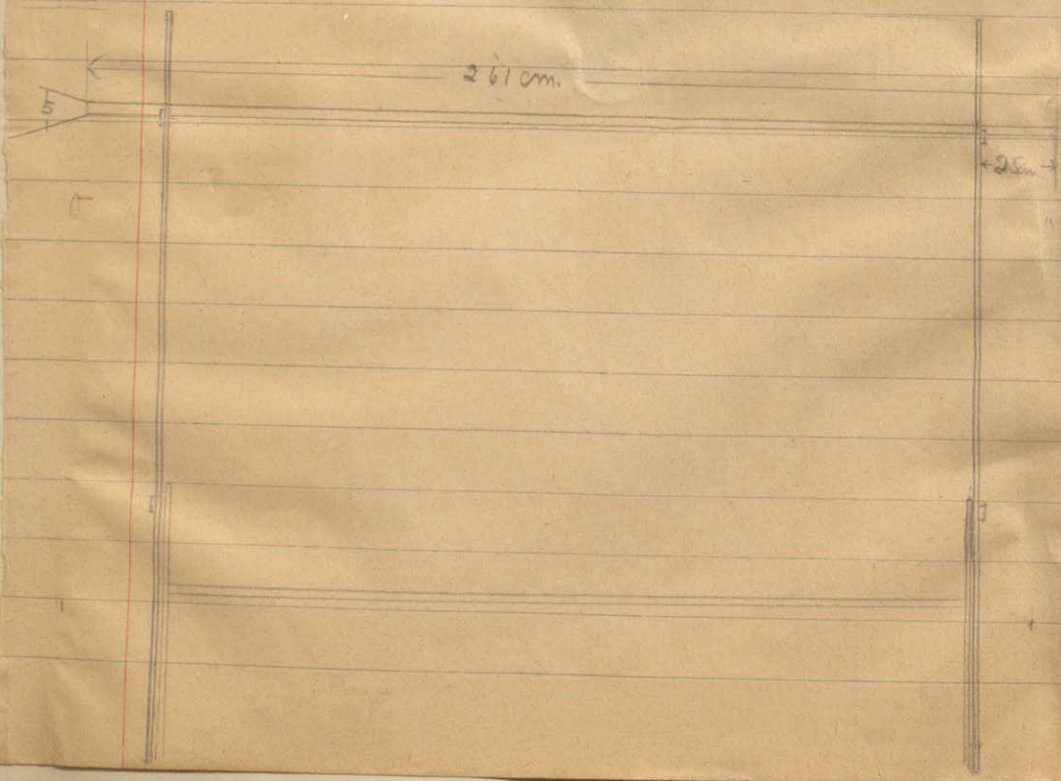
Apparatus of Dr. Blake.





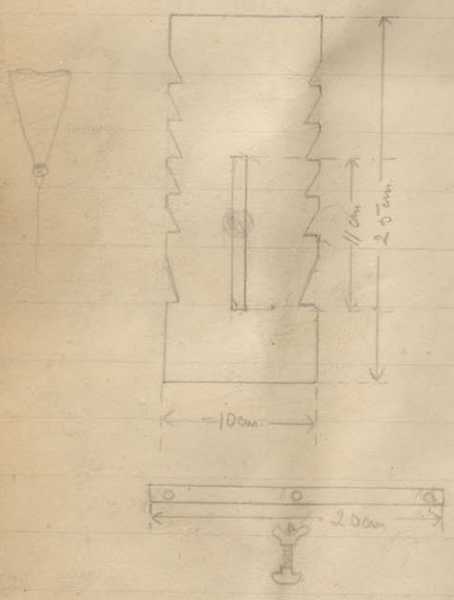
DIMENSIONS OF FRAMES

END FRAMES + LONGITUDINAL PIECE KEPT READY IN SPLINT ROOM.



Sinclair Skate.

LEFT



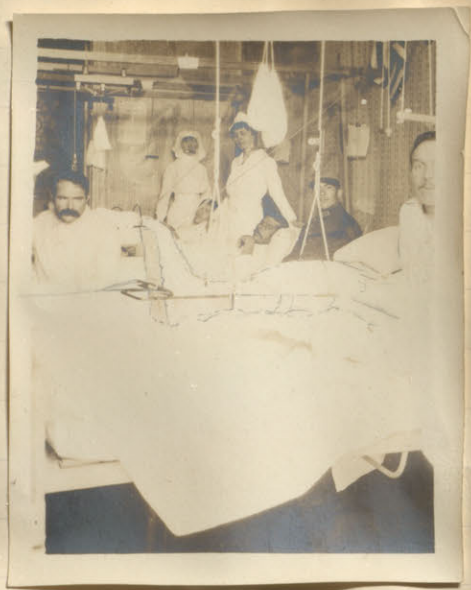
The strips of felt are sewed to small curtain rings. Each strip is cut as desired and glued to foot (Heussners glue gave good results) The two posterior strips are run a little way up Teuds-achilles. Strips are bound on with bandage while drying.

The skate is well padded and attached several hours later. By adjusting the cross bar the leg should be kept in external rotation. By alteration of the attachment of the extension rope inversion of foot may be provided.

Raising and lowering the slings supports of the leg lowers or raises the toe ie decreases or increases the dorsiflexion.

As in other extensions of leg an average of 4 lbs. is used.

Sinclair Skate



4.

Heussner's Glue for Extension

(1) Formule:		
	Colophane	50.0
	Alcool à 90 0/0	50.0
	Térébenthine de Venise	1.0
	Benzine	10.0

} Patient must be shaved. Bandage on for ½ hour. Glue will then hold well. Soluble in alcohol + ether.

Sinclairs Glue.

Common glue	200 grs
Thymol	4 cc.
Calcium Chloride	4
Glycerine	8
H_2O	200.

} no need to shave patient. Dissolves in water. Must be heated each time before use. Is very messy.

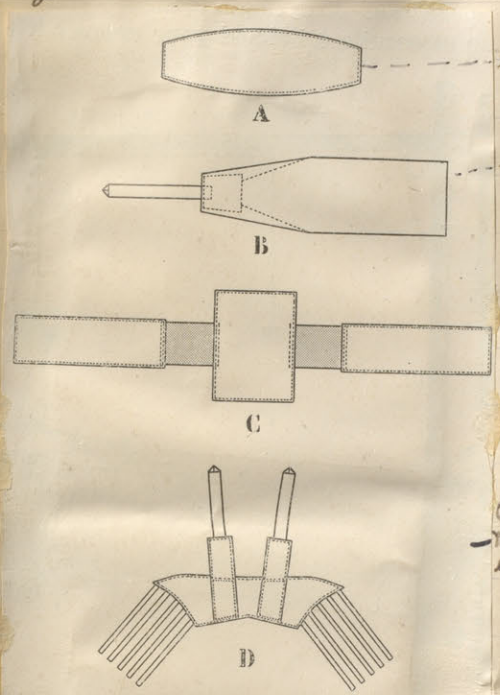


Fig. 2. — A) Bande pour supporter un membre lorsqu'il est fixé dans une attelle.
B) Bandes d'extension en finette à coller sur le membre.
C) Support pour empêcher la chute du pied: la partie centrale, plus large, est placée à la plante du pied; les parties ombrées sont en tissu élastique.
D) Guêtre pour l'extension lorsque les bandes adhésives ne peuvent pas être employées.

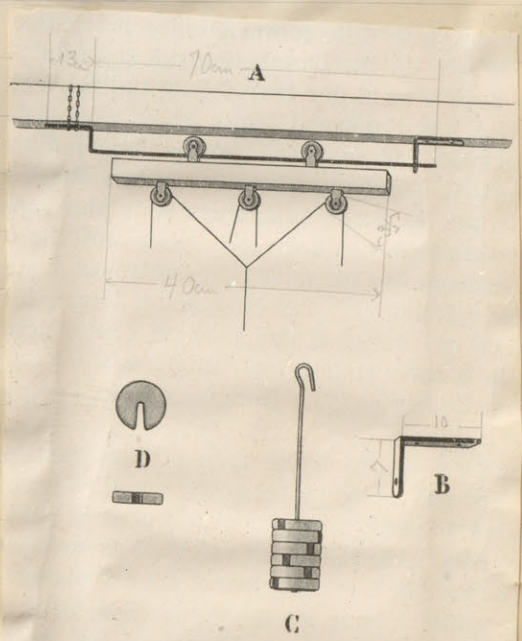


Fig. 1. — A) *Détails du trolley.* La barre en fer du trolley est recourbée à son extrémité gauche et fixée à la barre en bois située au-dessus; son extrémité droite, au contraire, passe dans un trou pratiqué dans l'équerre B), laquelle est elle-même fixée à la barre en bois du dessus. C) et D). *Détails du poids en plomb.*

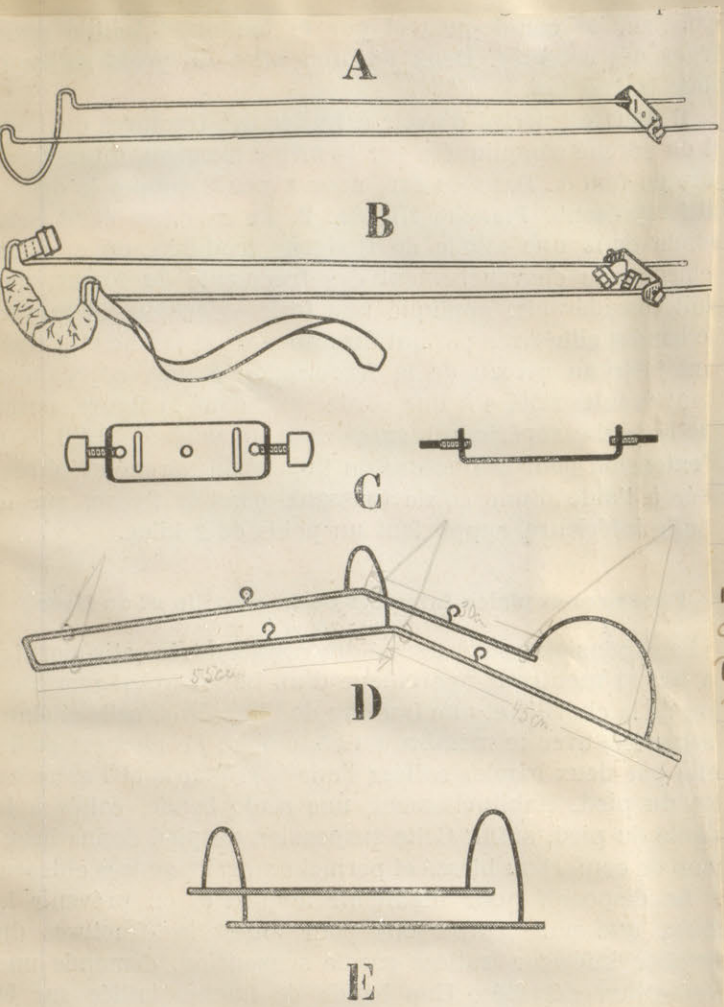


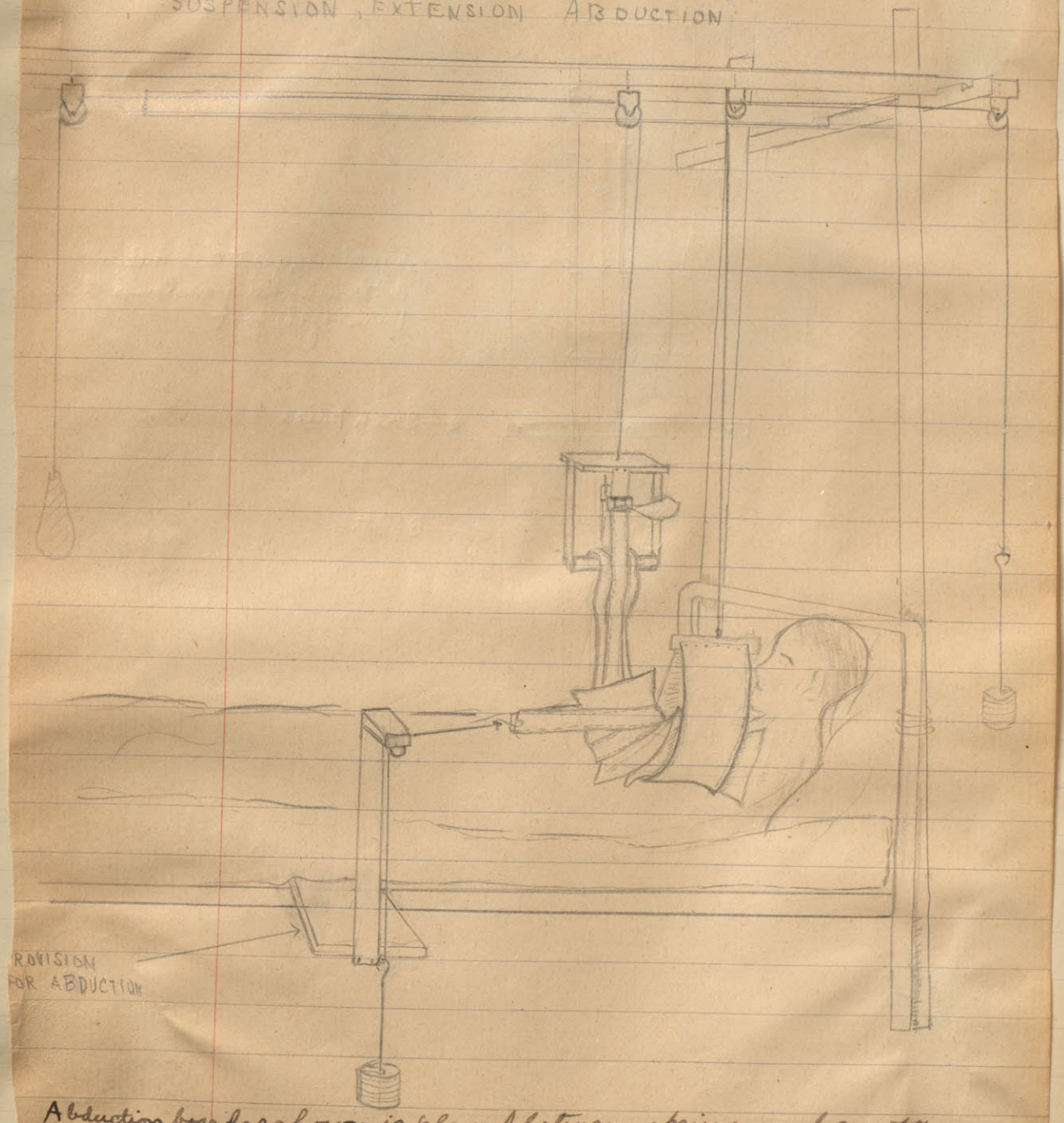
Fig. 15. — A) Attelle modifiée de Thomas pour fracture du fémur.
B) La même attelle rembourrée, avec pièce transversale munie de boucles.
C) Détails de la pièce transversale.
D) Attelle de Hodgens.
E) Cadre en fer pour la suspension de l'avant-bras.

Blade Splint

Hooks on Hodgins are misplaced. Points of attachment for best results in Sespending leg are shown.

FRACTURE OF HUMERUS.

SUSPENSION, EXTENSION ABDUCTION



Abduction board as shown is placed between spring and mattress & held in place by pt.'s wgt.

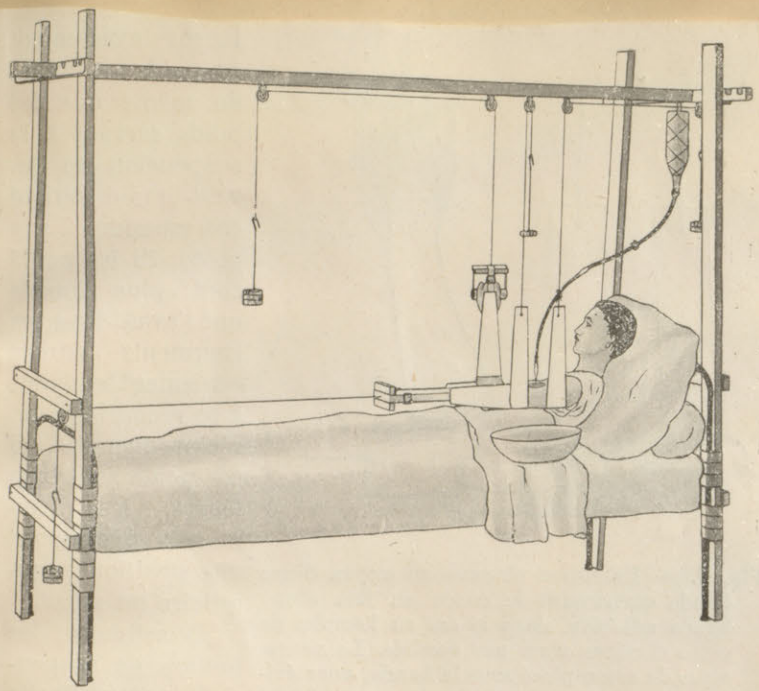
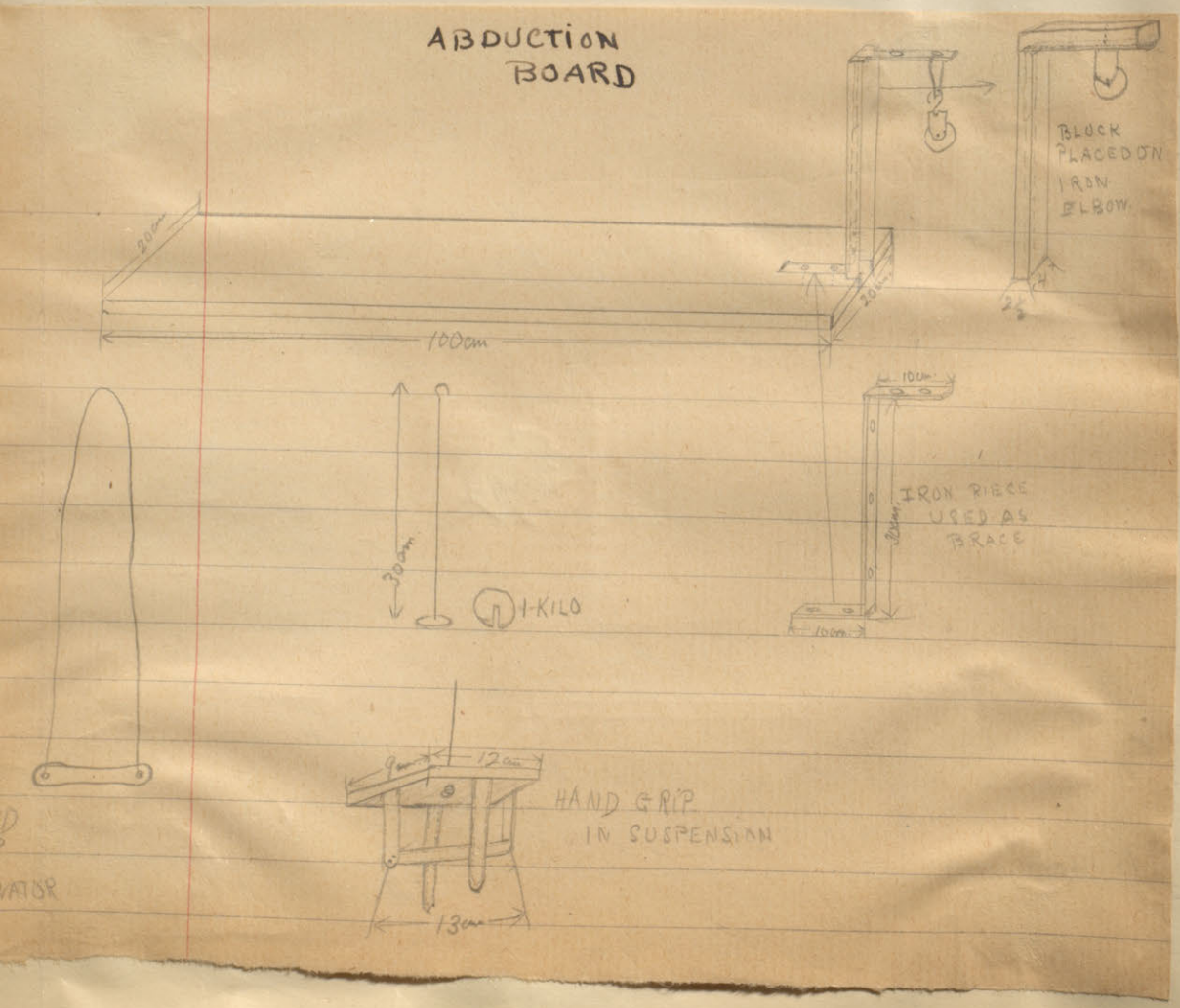


Fig. 4. — Fracture de l'humérus. Les bandes de suspension du bras sont en place. Application de l'irrigation continue.

Extension of humerus is obtained by means of Hennequin band or Barley-Caldwell straps not by glue as shown here.

SEE OTHER SIDE

ABDUCTION BOARD



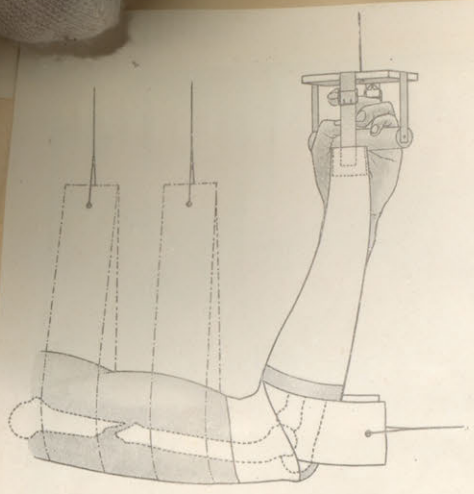
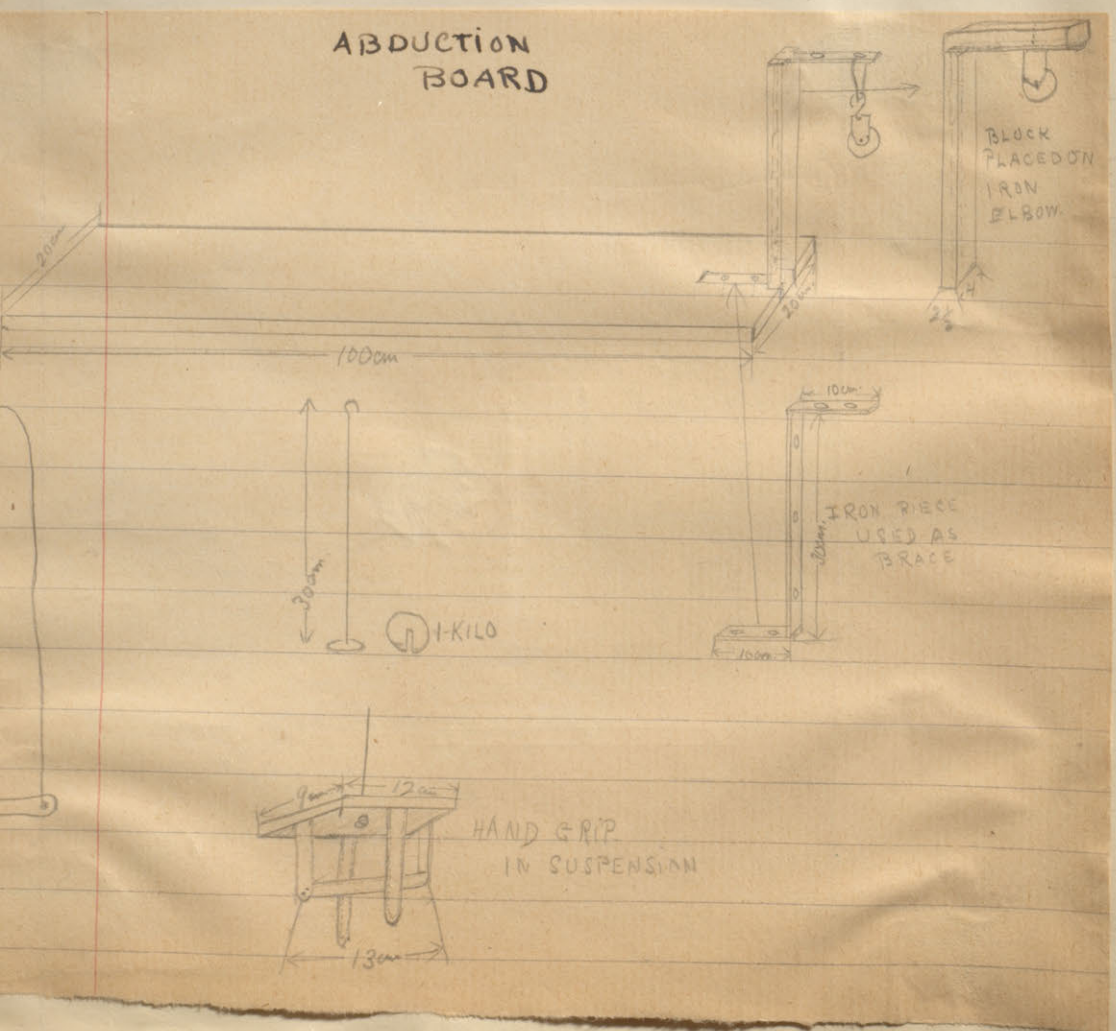


Fig. 5. — Extension obtenue au moyen d'une bande embrassant le coude au lieu d'une bande adhésive, dans le cas où l'emploi de cette dernière n'est pas possible. Le pansement de coton placé sous la bande, pour éviter une pression trop forte, n'a pas été figuré dans le dessin, afin de rendre le dispositif plus clair.

lancer exactement le poids du bras, de même que les poids servant à la suspension de l'avant-bras devraient correspondre à son poids. Si les poids sont plus lourds que l'avant-bras, les fragments auront également tendance à se recourber ; et, réciproquement, si ces poids sont trop légers, les fragments prendront une position angulaire en avant.

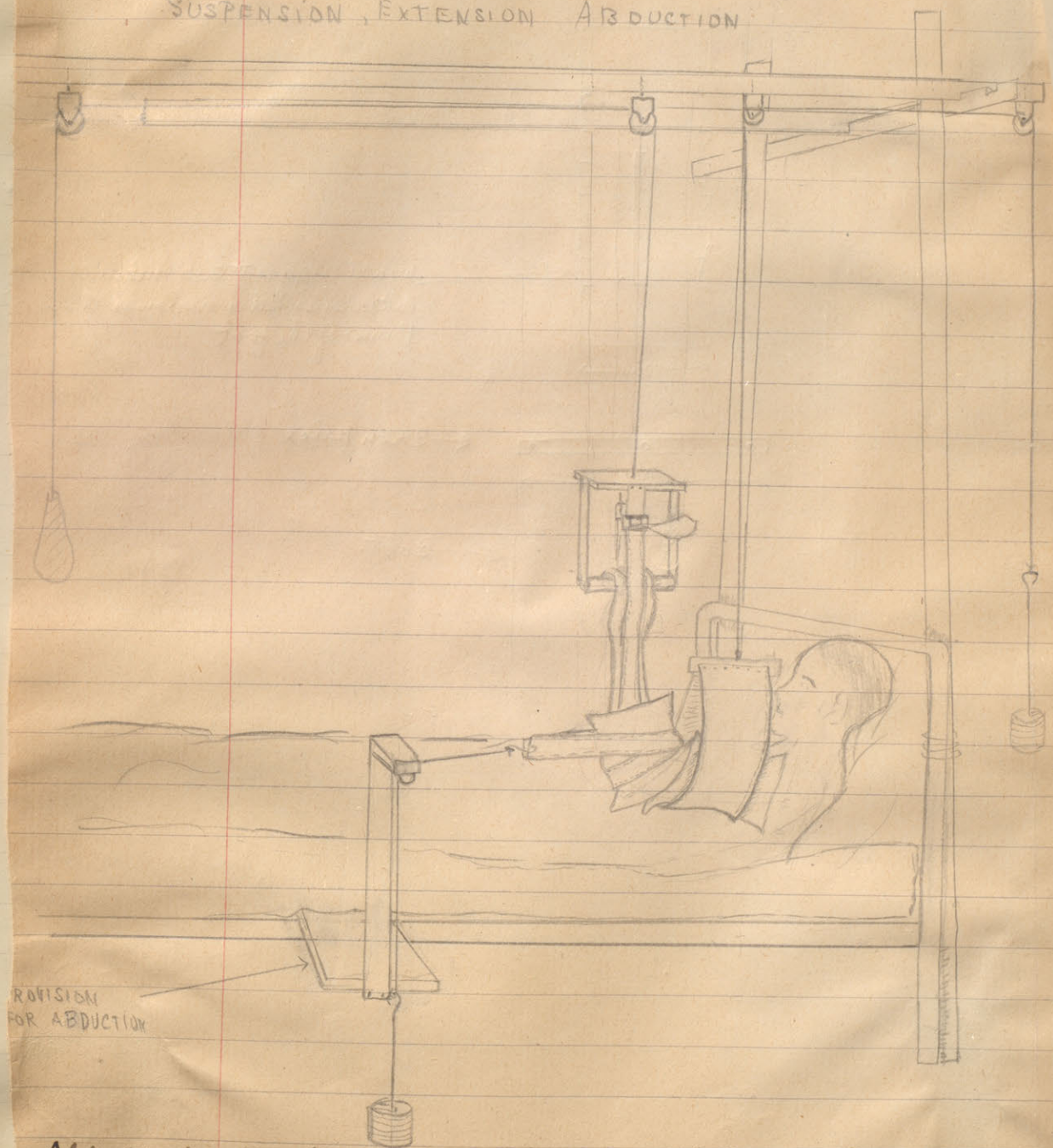
D'ordinaire, les bandes de suspension sont en finette doublée de toile non blanchie, ce qui leur donne de

Extension of humerus is obtained by means of Hennequin band or Barley-Caldwell strap not by glue as shown here.



FRACTURE OF HUMERUS.

SUSPENSION, EXTENSION ABDUCTION



Abduction board as shown is placed between spring and mattress & held in place by pt.'s wgt.

THE PRESBYTERIAN HOSPITAL

IN THE CITY OF NEW YORK

OFFICIAL NO. .....

NAME ..... DATE ..... HISTORY NO. .....

OPERATOR DR. ..... ASSISTANT DR. ..... POSITION OF PATIENT .....

OPERATION .....

..... DURATION .....

ANAESTHETIST ..... ANAESTHESA ..... DURATION .....

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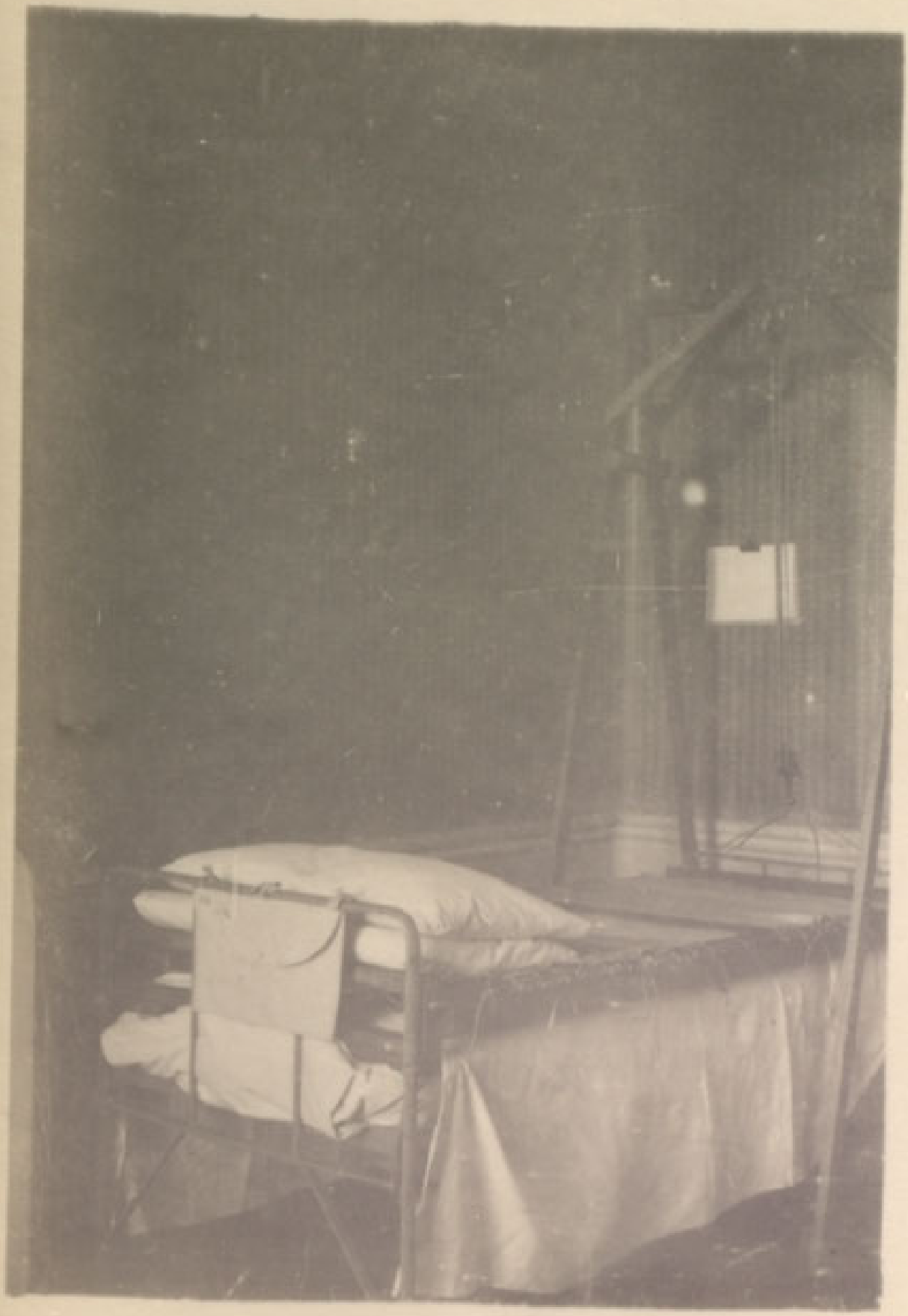
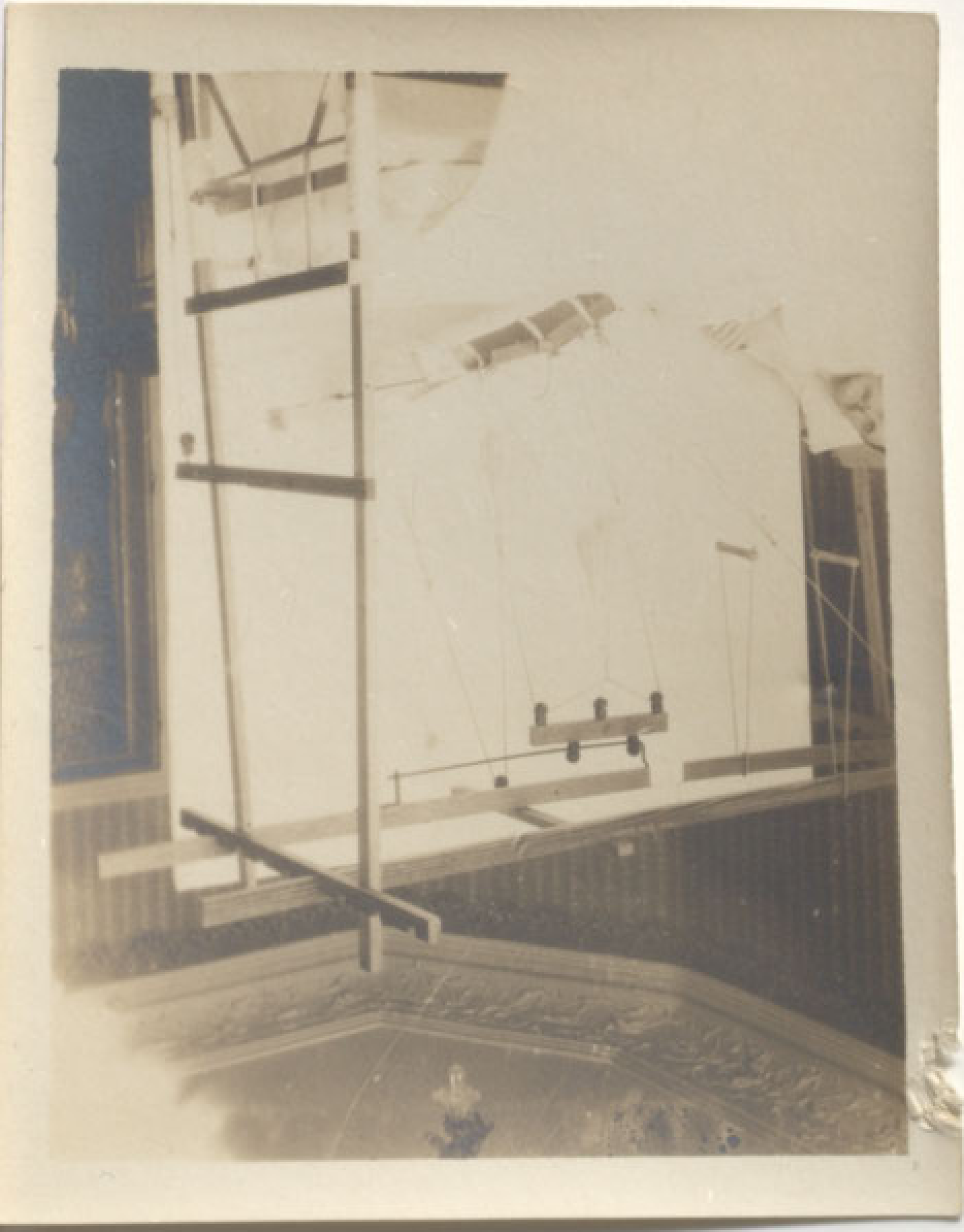
A 123-5M-1-21





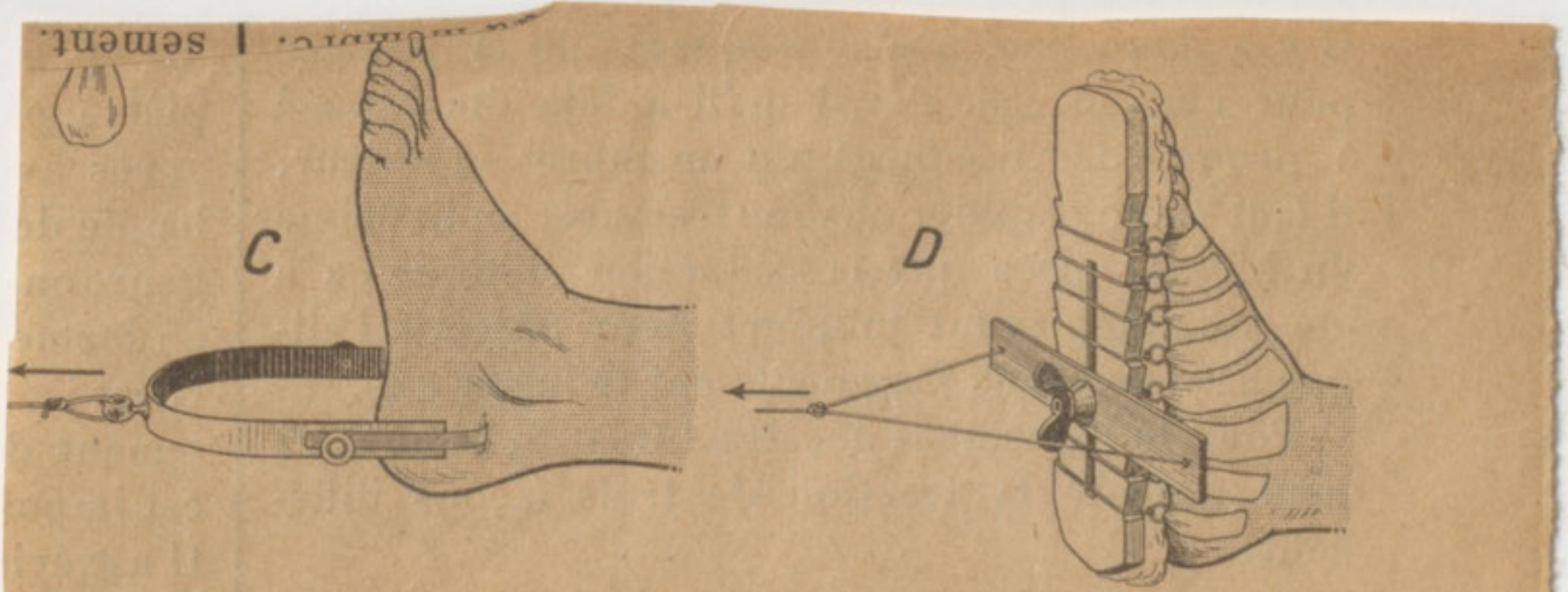


Fig. 15.— Quatre méthodes de traction employées pour fractures de jambe. (Pour description détaillée, voir p. 658.)

Il y a donc lieu, par conséquent, de la modifier pour chaque cas. Ainsi qu'il a déjà été exposé à propos des fractures du membre supérieur, il faut radiographier chaque fracture, au lit même du blessé, après que la réduction clinique en a été obtenue, ayant toujours pour objectif l'alignement des deux fragments sur le même axe.

Pour le traitement des fractures du fémur, on peut obtenir la traction de trois façons différentes :

1° Par bandes collées;

2° Par traction exercée directement sur le squelette, comme par exemple avec la broche de Steinman ou la bande de Finochetto;

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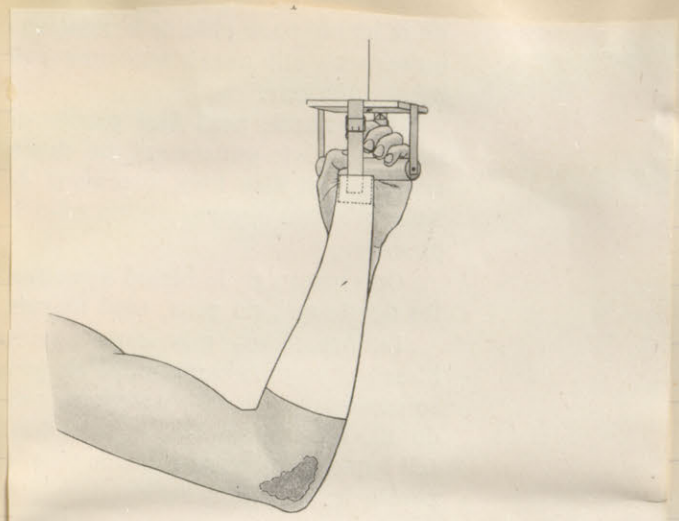

Fig. 6. — Détail de la suspension du bras pour plaies impliquant l'articulation du coude, montrant l'application des bandes adhésives sur l'avant-bras, et la poignée pour les doigts. Cette poignée est suspendue à la planchette par des bandes d'élastique et la tension de celles-ci est déterminée soit en raccourcissant, soit en allongeant les bandes adhésives au moyen de boucles.

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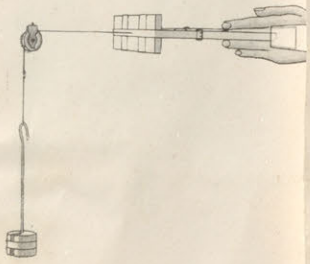

Fig. 8. — Détail de l'app
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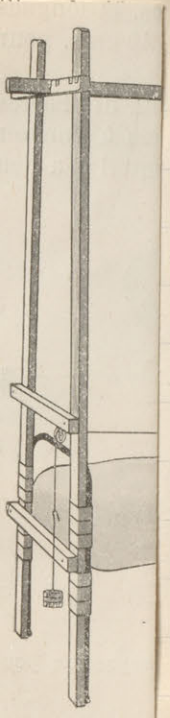

Fig. 7. — D

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Extension is secured also with glove glued to fingers & rings in fingers. Counterextension is ~~both~~ better, secured & glue if the fracture is low. The midway position or better supination should be maintained.

See case + picture - p. 33.

moyenne, elles sont larges au milieu de 12 cms. et longues de 30 cms. pour l'avant-bras et la jambe, et de 45 cms. pour la cuisse.

Les bouts étroits des bandes sont passés autour des barres et fixés avec des épingles de sûreté de manière à pouvoir facilement ajuster le support du membre. Lorsqu'il y a lieu

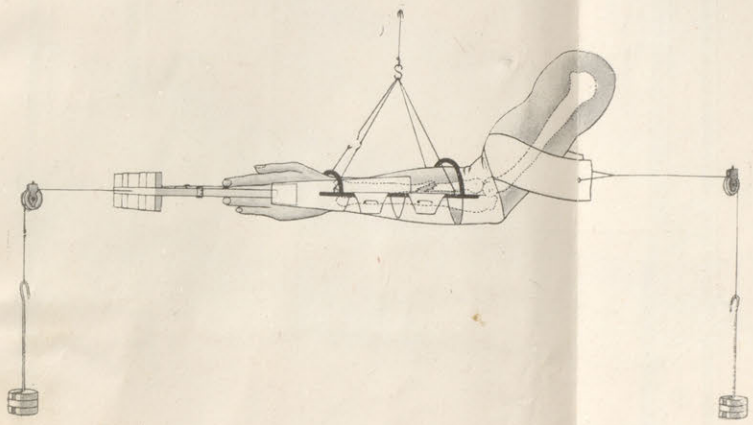

Fig. 8. — Détail de l'appareil d'extension et de suspension pour fractures de l'avant-bras.

de faire de l'irrigation continue ou des pansements humides, on peut employer une seule bande de toile caoutchoutée dont la largeur devra correspondre à la longueur [illegible]

Extension is secured also with glove glued to fingers & rings in fingers. Counterextension is better secured & glue if the fracture is low. The midway position or better supination should be maintained.

See case + picture - p. 33.

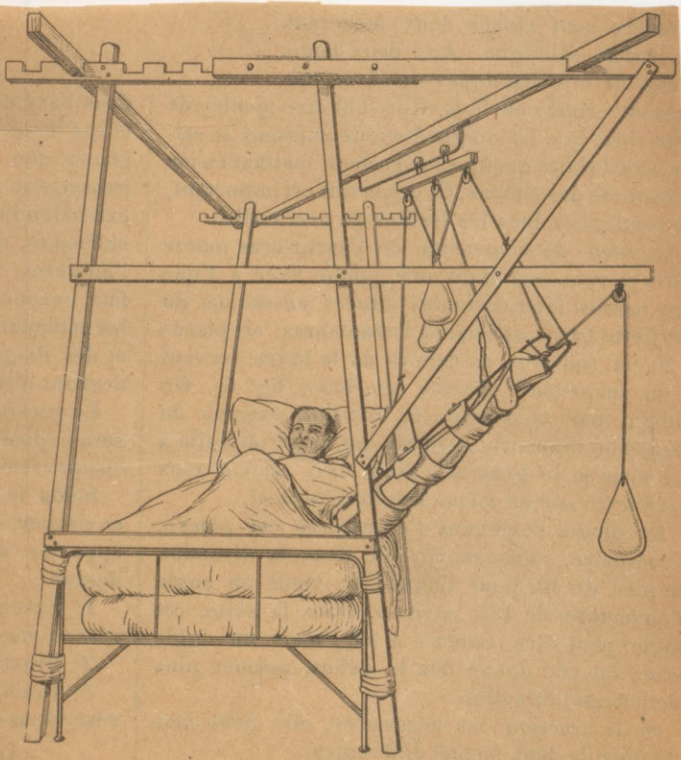

Fig. 12. — Utilisation de l'attelle droite et méthode de traction. Noter la disposition du cadre situé au pied du lit, l'abduction prononcée du membre, l'angle de la grande barre supportant le membre et ayant presque la même direction que lui, ainsi que la méthode du tourniquet pour obtenir la traction du membre dans l'attelle. — Remarquer également la bande plantaire destinée à éviter la chute du pied.

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1. Blake. — *Arch. de Méd. et de Pharmacie militaires*, Paris, 1916, LXVI, 57.

rnière sont cloués deux morceaux
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élasticité des rubans. Ce dispositif est important,
n particulier dans les lésions du nerf radial.

La corde de suspension de l'avant-bras monte
lors et va passer dans une poulie fixée à l'une
es barres longitudinales situées au-dessus du
t. Cette barre, spéciale à l'avant-bras, est placée
20 cm. (ou plus) en dehors de la barre servant
la suspension directe du bras (fig. 6). On
btient par ce moyen la rotation externe du
ragment inférieur, résultat qui serait difficile à
cquérir si le bras et l'avant-bras étaient tous
leux fixés sur un même axe longitudinal.

La poulie soutenant l'avant-bras est placée,
d'ordinaire, suffisamment loin dans la direction
du pied du lit, pour donner au coude un angle
d'ouverture de 135° environ. Dans la suite, cet
angle peut être ramené à 90°; mais un angle
assez ouvert, donné dès le début, permet plus
facilement la traction.

Si la traction est nécessaire, elle peut être
obtenue de deux façons différentes :

a) L'emploi des bandes collées sur chaque
face latérale du bras est très efficace et donne une
onne traction du fragment osseux inférieur
(fig. 5). Egalement dans ce cas, on se sert d'une
planchette de traction, dépassant de 2 cm. la
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Dans les fractures du tiers supérieur de la diaphyse humérale, en dessous du col chirurgical de l'humérus, la traction est en général nécessaire, mais dépasse rarement 2 kilogr. Elle peut être faite à l'aide de bandes collées. Quant à la suspension, on l'établit comme à l'ordinaire.

Les indications de l'abduction à donner au membre seront fournies par l'importance des lésions musculaires reconnues. En effet, si les in- [illegible] et dorsales sont dé[illegible]

d'interrompre la traction deux fois par jour, afin de pouvoir pratiquer la mobilisation active et passive des petites articulations des doigts. La supination extrême est rarement nécessaire. Un degré un peu moindre suffit à empêcher l'union entre les deux os de l'avant-bras.

Dans les cas d'œdème considérable, il est parfois utile

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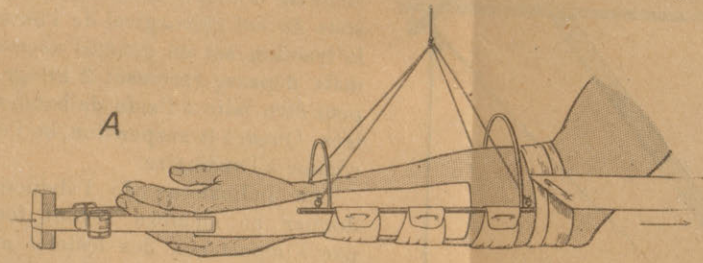
que l'on puisse attendre de cette intervention c'est l'ankylose, bien que ce soit très souvent le « bras en fléau » que l'on observe.



Union, dans les plaies situées bas, on obtient une très bonne traction en se servant d'un gant, ainsi que le montre la figure 10. La main est d'abord copieusement enduite de colle, puis recouverte d'un gant de coton blanc, portant à l'extrémité de chacun des doigts un petit anneau métallique. La traction est faite par l'intermédiaire des doigts et demande un poids de 1 kilogr. 1/2 environ.

Il faut prendre grand soin d'interrompre la traction deux fois par jour, afin de pouvoir pratiquer la mobilisation active et passive des petites articulations des doigts. La supination extrême est rarement nécessaire. Un degré un peu moindre suffit à empêcher l'union entre les deux os de l'avant-bras.

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Les indications de l'abduction à donner au membre seront fournies par l'importance des lésions musculaires reconnues. En effet, si les in- [illegible] et dorsales sont dé-

B

truites, il y aura lieu de donner plus d'abduction au membre que si ces insertions étaient conservées.

D'une manière générale ces fractures demandent une abduction de 60°. On y parvient très simplement ainsi qu'il est indiqué figure 7.

Le procédé consiste en une planche

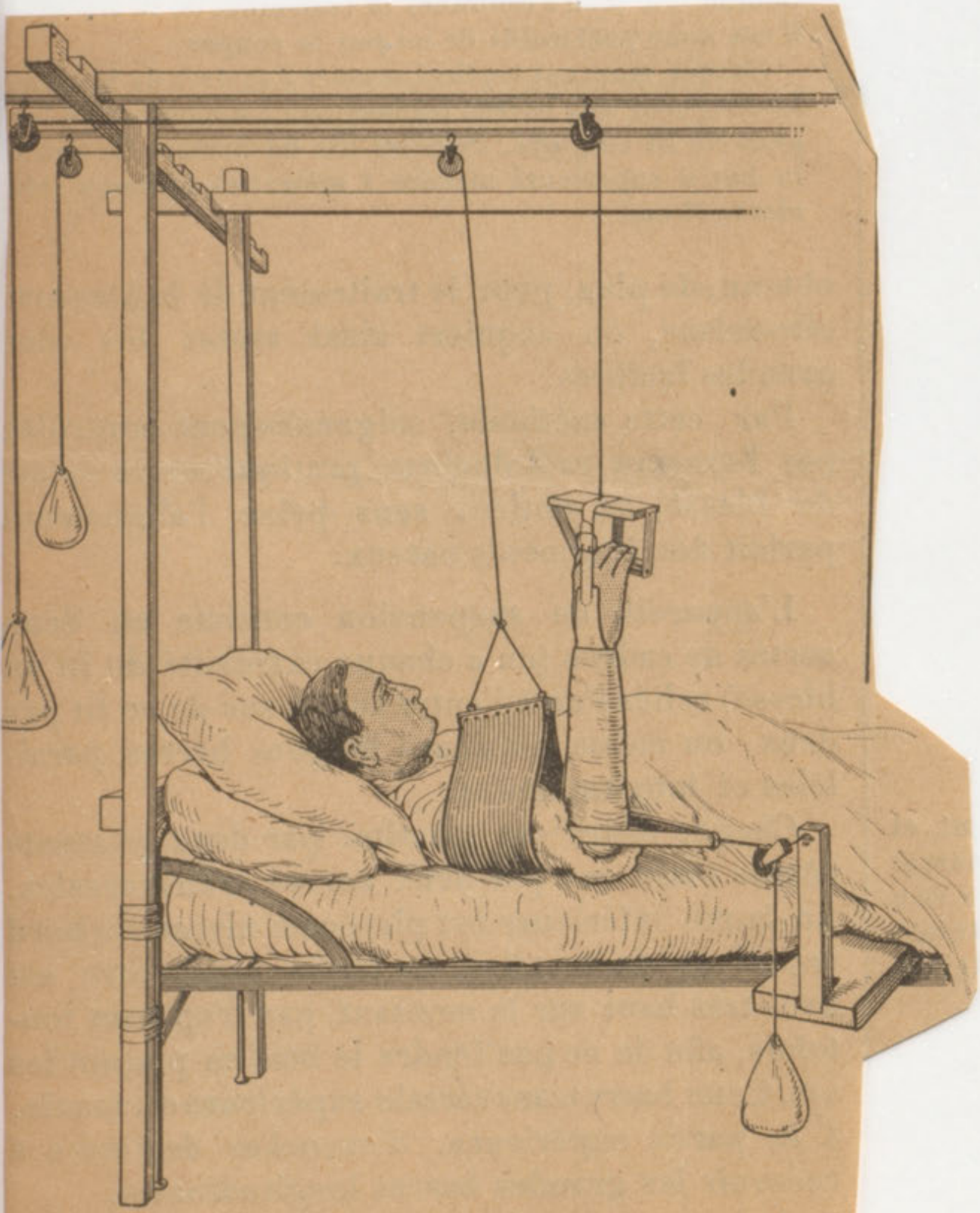


Fig. 7. — Méthode simple permettant d'obtenir l'abduction et la traction du bras à l'aide d'une planche non rabotée, glissée entre le matelas et le sommier, et maintenue en place par le poids même du blessé. (Voir le texte « Humérus », tiers supérieur.)

il est donc préférable de ne pas la couper.

Chaque montant vertical mesure 2 mètres de hauteur. La longueur des barres transversales dépend de la largeur du lit employé. Pour les lits du Service de Santé, la barre supérieure mesure 1 mètre, et la barre inférieure 75 cm.

obtenu ; de plus, pour le traitement de la blessure elle-même, on acquiert ainsi toutes les plus grandes facilités.

Par cette méthode, soigneusement contrôlée par l'examen radiologique pratiqué au lit même du blessé, on obtient sans peine l'alignement parfait des fragments osseux.

L'appareil de suspension consiste en deux sortes de cadres (un à chaque extrémité du lit du blessé) reliés l'un à l'autre au-dessus de ce lit par deux, ou même plusieurs longues barres parallèles et longitudinales.

Chaque cadre est constitué par deux montants réunis entre eux par deux barres transversales. La barre inférieure est placée au niveau du bord supérieur du matelas. La barre supérieure est fixée très haut sur le montant, pas trop haut toutefois, afin de ne pas fendre le bois en plaçant les vis. Cette barre transversale supérieure est munie, à sa partie supérieure, d'encoches destinées à recevoir les grandes barres longitudinales.

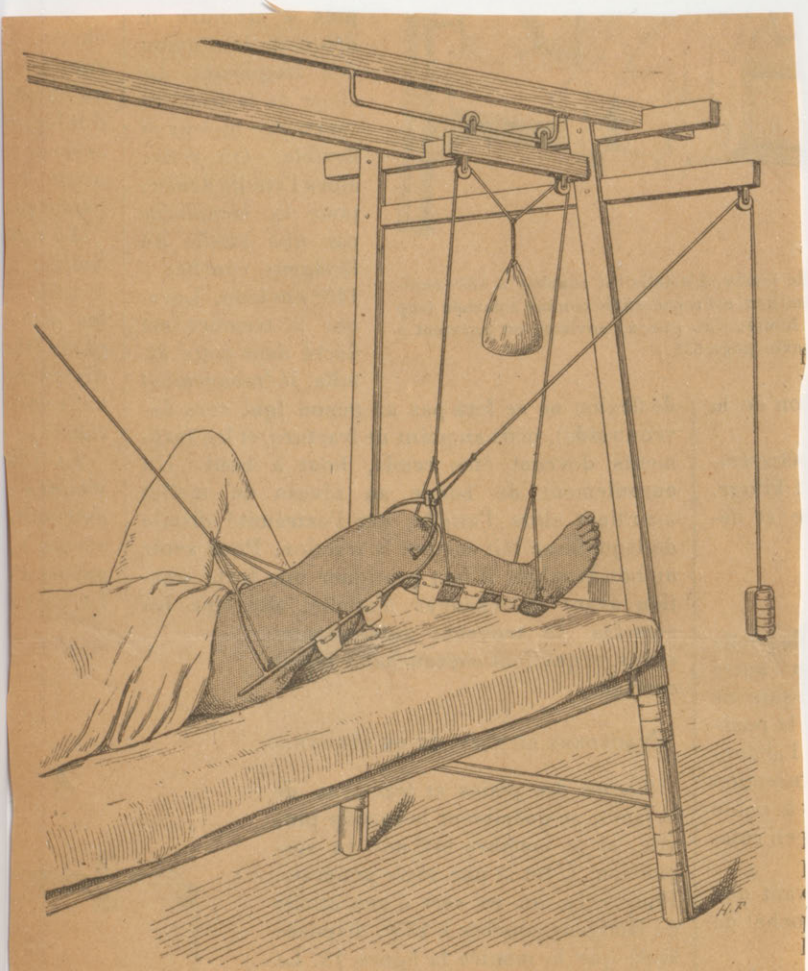


Fig. 13. — Dispositif pour fracture du tiers supérieur du fémur, où a été employée la broche de Steinman. Noter la flexion du genou, l'abduction et la rotation externe du membre.

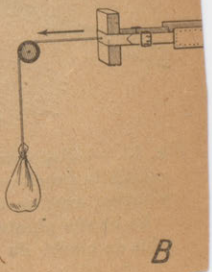
La bande plantaire contre la chute du pied n'a pas été figurée ici, pour plus de clarté du dessin. (Voir le texte page 657.)

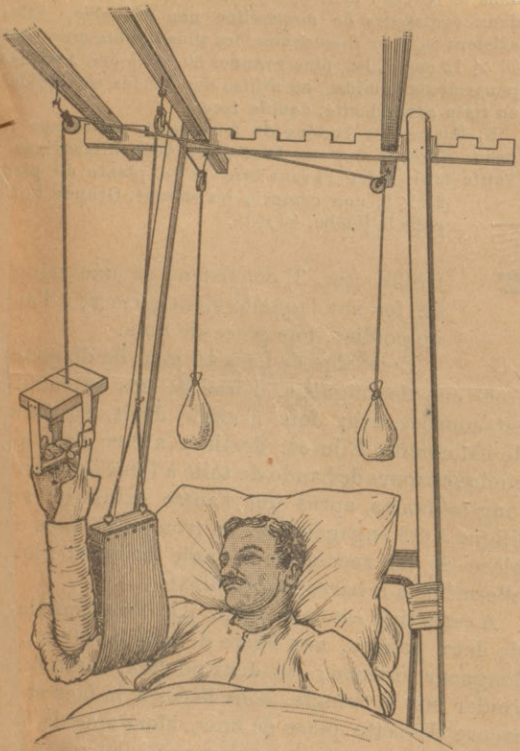
le jambe. L'attelle est courbée à 135° environ, et, au milieu, est représentée comme attachée trop haut. Au niveau du genou, environ, on parvient à
(Texte page 658.)

puis à attendre le début de la réunion des fragments. Le siège de la fracture est encore fibreux et flexible. On retire alors l'attelle droite, pour la remplacer par une attelle de Hodgens courbée à 110° environ. Lorsque le membre est fléchi dans cette attelle, le mouvement de flexion ne se fera pas au genou (qui sera devenu raide), mais au point de fracture, et les fragments devront être remis, bout à bout. Un enroulement de bande au niveau du mollet maintient alors l'attelle, par l'extrémité distale de laquelle se fait ensuite la traction. Pour avoir un bon résultat, il faut pratiquer une forte traction avant de changer d'attelle, afin que les muscles se trouvent suffisamment étirés, et que tout chevauchement soit corrigé.

Fractures du tibia et du péroné.

Toutes les plaies et fractures de la jambe se guérissent beaucoup plus vite, si le membre est mis en suspension. C'est là une règle générale. Pour cela, on se sert d'une attelle de Hodgens courbée à 135°, disposée ainsi que le montre la figure 14. La jambe placée au milieu de l'attelle repose sur les bandes ordinaires (v. fig. 4). L'appareil est suspendu par le trolley précédemment décrit. La contre-extension est obtenue par l'in-





6. — Dispositif de suspension pour fracture mérus. Remarquer l'usage de trois barres longitu-les, la plus externe des trois servant à soutenir nt-bras, en maintenant le fragment inférieur de ıérus en rotation externe. (Se reporter au texte mérus », observations générales.)

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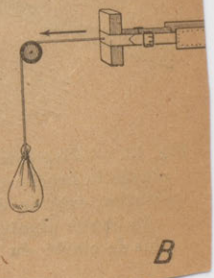

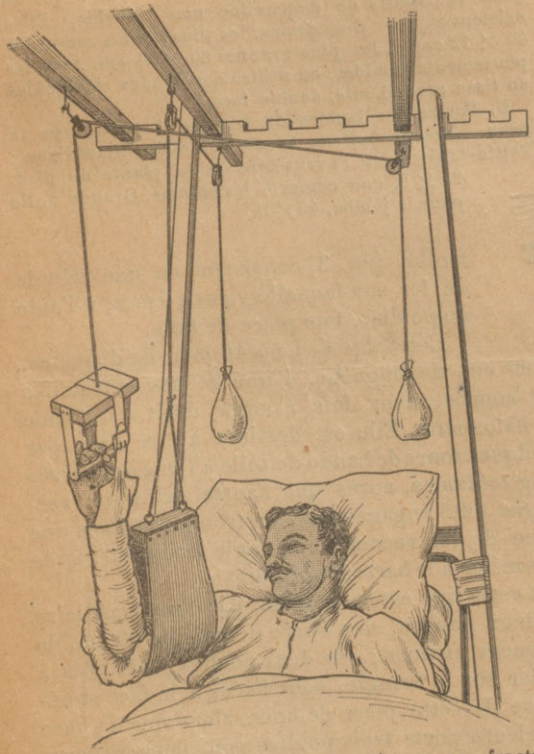

Fig. 6. — Dispositif de suspension pour fracture d'humérus. Remarquer l'usage de trois barres longitudinales, la plus externe des trois servant à soutenir l'avant-bras, en maintenant le fragment inférieur de l'humérus en rotation externe. (Se reporter au texte « Humérus », observations générales.)

dans le berceau pour avant-bras. Elles sont faites de deux épaisseurs de mousseline non blanchie. Elles existent en deux dimensions, les plus petites mesurant 40 × 12 cm. et les plus grandes 60 × 20 cm. Avec les pansements humides, on utilise des bandes semblables en tissu caoutchouté, double face.

B, Forme des bandes de traction à coller sur la peau. Elles se font en finette en deux dimensions : Petite taille pour l'avant-bras et la plante du pied, 25 × 8, non compris les rubans. Grande taille pour la jambe, 40 × 15.

trolley (fig. 3) consistant en une tringle de fer sur laquelle vient glisser, à l'aide de poulies, une pièce de bois.

Cette tige de fer a 10 mm. de diamètre, et 90 cm. de longueur. L'une de ses extrémités est courbée deux fois à angle droit, en forme de baïonnette. Elle est destinée à être fixée par quelques tours de bande de toile à l'une des barres longitudinales, après que l'autre extrémité rectiligne a été engagée dans un trou percé dans une pièce de fer recourbée à angle droit et vissée elle-même à la barre longitudinale.

A cette tige est suspendue, par l'intermédiaire de deux poulies, une barre de bois de 40 cm. de longueur environ ; ces deux poulies, destinées à rouler sur la tringle, sont fixées à la face supérieure de cette pièce de bois, alors que la face inférieure porte trois poulies pour la suspension du membre. On peut employer, soit des poulies à crochet, soit des poulies à vis. Ce dernier modèle nous semble être plus facilement ajustable.

Les poids sont ordinairement de 500 gr. Toutefois pour un réglage précis, et lorsque les poids

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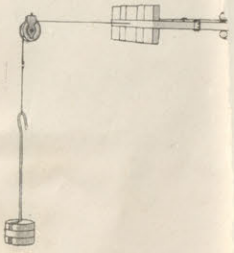

Fig. 8. — Détail de

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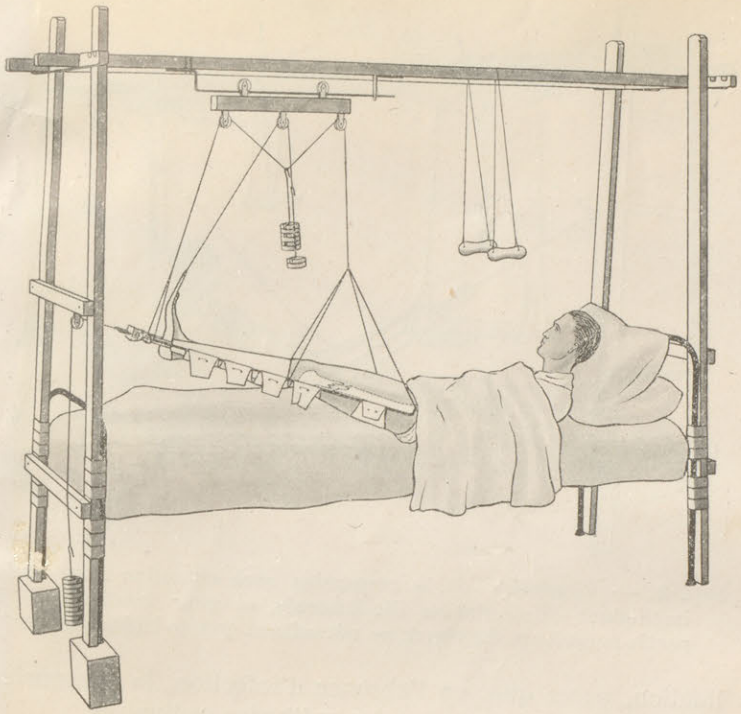
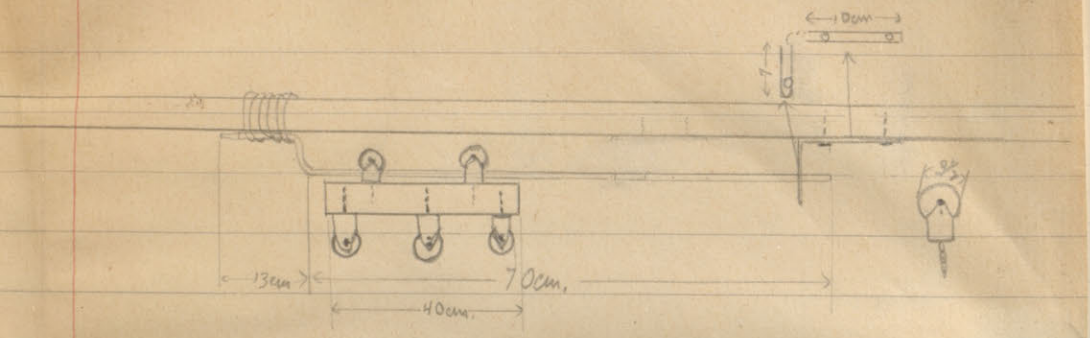


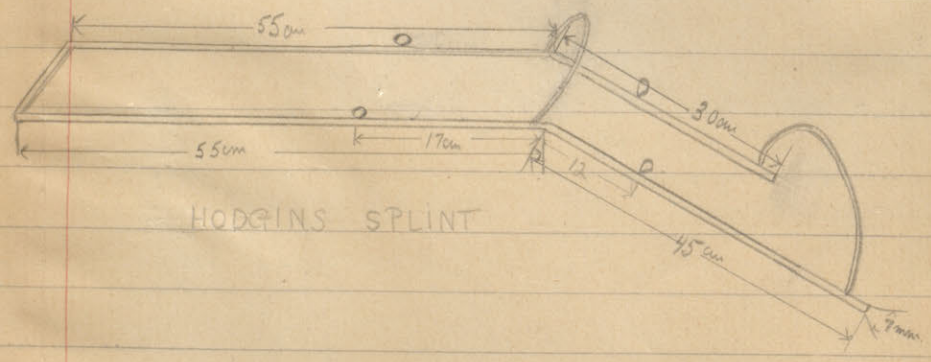
Fig. 10. — Traitement d'une fracture de la partie inférieure du fémur au moyen d'une forme modifiée de l'attelle de Thomas.

See over.

If fracture is high the leg is put up in abduction to follow superior fragment out.

For illustrative cases see pp. 36, 37, 38, 39, 40.





HODGINS SPLINT

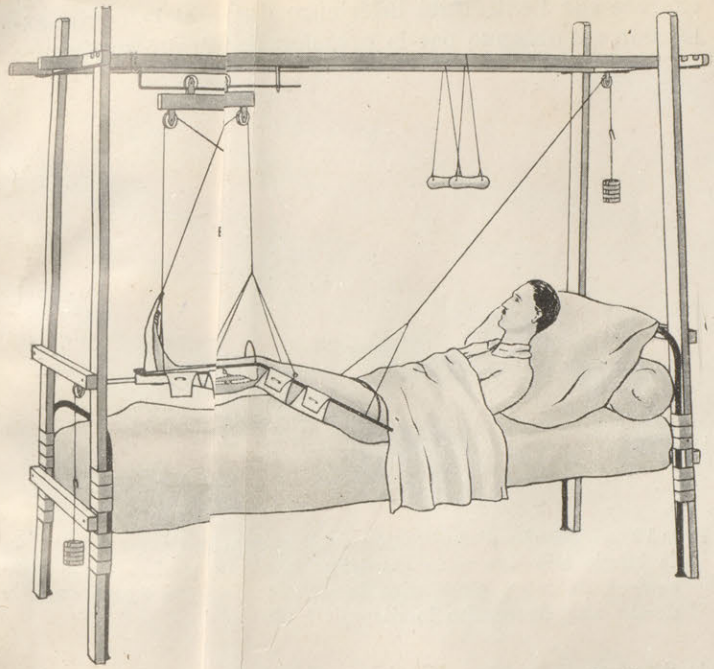


Fig. 12. — Dispos de l'appareil pour le traitement de fractures du tibia et du péroné. — Le dessinateur a oublié d'indiquer la planchette d'écement des bandes d'extension.

See over

Apparatus for Correction of toe drop and exercise of leg muscles.
Attachment is made to the foot of the bed by means of a cord. Resistance to the movements of the foot is made by means of a hinge spring, the intensity of which pressure may be regulated by advancing the prop (A).

When this apparatus was applied to patient shown in picture he had no control of movement at the ankle due to disease. In two weeks a certain degree of voluntary motion had returned.

Apparatus for Correction of Toe Drop
Hinged foot ~~peice~~ piece is drawn upward by elastic. The whole is wired to a posterior moulded plaster splint extending from below the knee to the ankle. The plaster splint was made on a heavy wire frame and small wires incorporated which were afterward fastened to the leg pieces of the apparatus.
The patient walked on crutches & even put some wgt. on foot.

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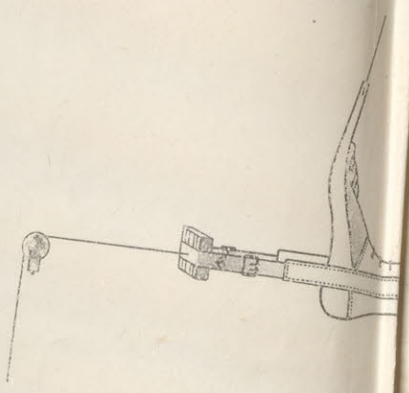

Fig. 13. — Détails d'application de la guêtre p
la bande adhésive pour empêcher la chute d
sement de coton placé sous la guêtre n'a p
dessin afin de rendre le dispositif plus clair

de l'appareil contre l'ischion. L'attelle u
et le membre supporté par les bandes pas
d'une barre à l'autre, on peut le porter dans
direction sans déranger la position relative

Apparatus for Correction of toe drop and exercise of leg muscles.
Attachment is made to the foot of the bed by means of a cord. Resistance to the movements of the foot is made by means of a hinge spring, the intensity of which pressure may be regulated by advancing the prop (A).

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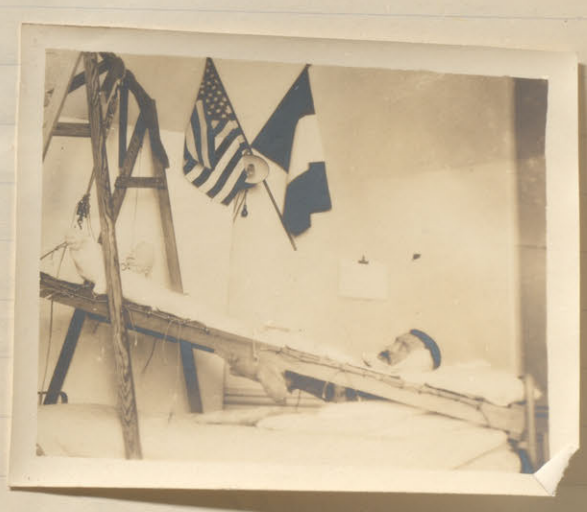
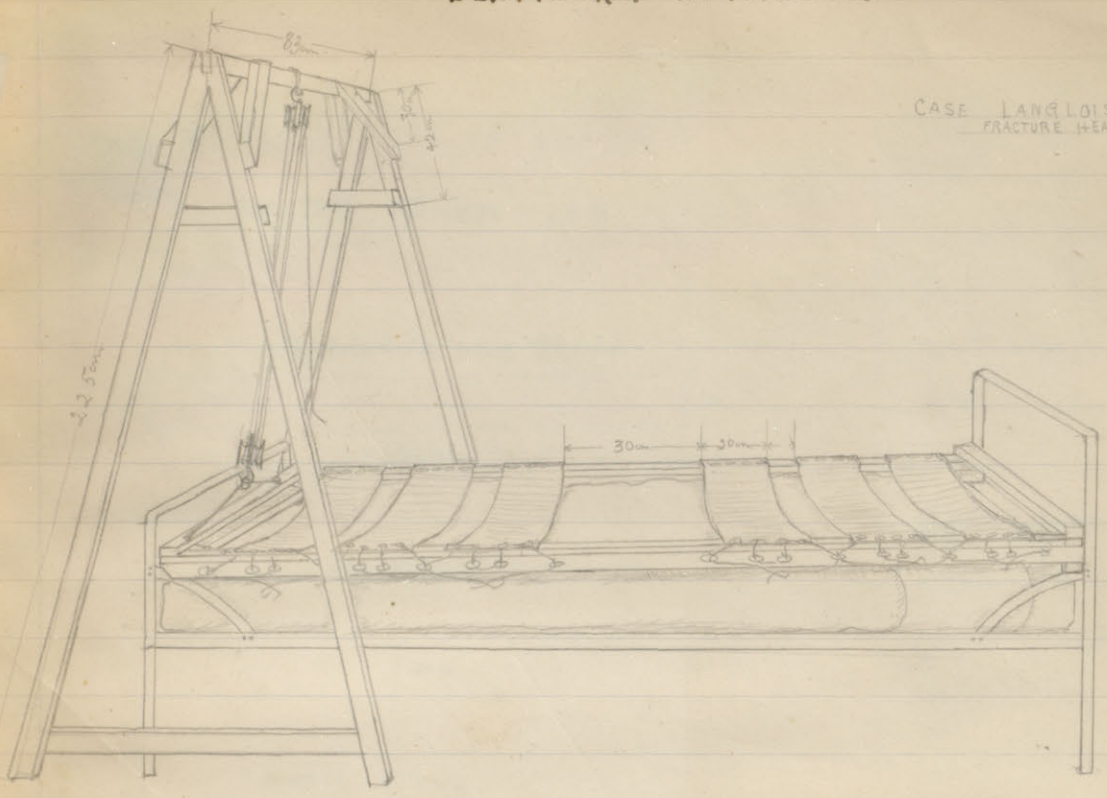


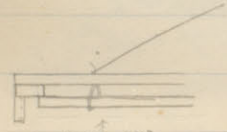
For case see pp. 30, 31.

ELEVATING APPARATUS



CASE LANGLOIS
FRACTURE HEAD FEMUR + ACETABULUM

LUMBER USED IS SAME AS THAT FOR APPARATUS (5cm x 25cm)



FOOT END STRETCHER

HEAD END STRETCHER

Dr. Allison.

APPARATUS OF DELBET

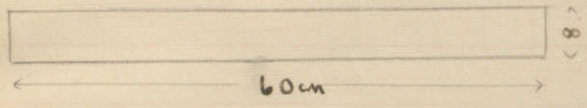
N.A.S.M.

S.S.

PLASTER SPLINTS – LEG

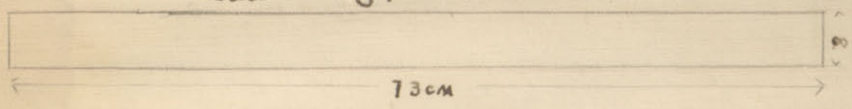
CIRCULAR LEG PIECE

[A]



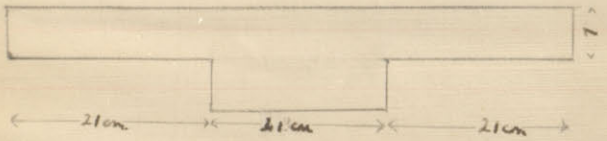
Lateral leg piece turned over.

[B]



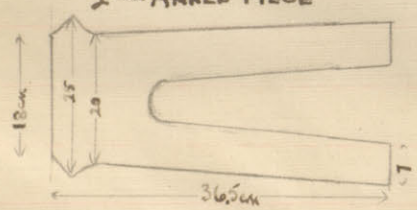
ANKLE PIECE

[C]



2nd ANKLE PIECE

[D]



Layers of crinolin 10 pieces thick + folded over rather than cut.

Crinolin pieces seen in use at the front for plaster work, by Dr. Blake + Captain Allison. They reported that they saw men walking, who had broken fibula + tibia, three days after the application of the plaster + some who had used the same for 3 months without a bed sore appearing.

See page 129 of "L'Appareil plâtré dans les Fractures de Guerre."

Oct 29, 1917

Telephone Probe of Dr. Bulkley – (as used by him in N.Y.)

Apparatus – Two ear pieces like wireless receiver – Each contains an electromagnet ~~of~~ wound with fine wire (copper) of 1500 ohms resistance making 3000 ohms. Indifferent electrode = rod of carbon to be placed in mouth, rectum, or vagina (This obviates skin resistance). Other electrode – large sewing needle ~~shellaced~~ shellaced up to within ½ cm. of point. (Probe may be substituted)

On passing electrode into flesh or wound the contact with tissues gives a little click. On touching metal (including lead) one hears a rasping sound plainly. Take care not to be near a large dynamo or magnet ~~if not~~ & not on iron bed.

Dr. Bulkley finds the same instrument with 1200 ohms resistance (in all) is most satisfactory as this gives no click on meeting tissue but only metal.

Glue. Leudoit.

[illegible] consistency is obtained. Before use it must ~~be~~ be heated. The principle advantage of this glue over Kensmer's is that there is no necessity to shave the [illegible] and it comes off ē water. It is more messy however and I find it less satisfactory.

Solutions in use for Dressings – Dr. Blake

		gm-cc.
1. B naphthol	B. naphthol	1
	Sod. Hydroxide	1
	H_2O	1000

		gm-cc	
2. Quinine	Quinine Hydrochloride	1	used only with acetic as see below.
	NaCl	8	
	H_2O	1000	

		gm-cc PE	P..
3. Sodium Bicarb.	Sodium bicarb.	10	40
	NaCl	8	
	H_2O	1000	

4. Acetic	Acetic acid (90%)	5
	NaCl	8
	H_2O	1000.

(To make up the much used Acetic & Quinine. combine two above formulae making same strength ie Quinine 1gm. Acetic 5gms. Nacl 8.

5. Carrel Modification of Dakins Solution – Daufresne Formula
Preparation of same below.
(Method employed at Carrel Hospital Compiègne.)

		gm-cc
(1) Accurately weigh.	Chloride of lime $(Ca(OCl)_2)$	200
	Dried Carbonate of Soda Na_2CO_3	100 = 200
	Bicarbonate " " $NaHCO_3$	80

(2.) Place Chloride of lime in 12 L. bottle add 5 L. ordinary water and shake several times, well at intervals + allow to stand over night.

Oct 29, 1917

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Dr. Bulkley finds the same instrument with 1200 ohms resistance (in all) is most satisfactory as this gives us click on meeting tissue but only metal.

Glue. Sinclair.

GLUE No 2

Common glue	200 gr.
Water	200 "
Glycerine	8 "
Calcium chloride	4 "
Thymol	4 "

Above is I believe what Dr. Sinclair uses in his treatment of fractures. It must be boiled in double boiler till desired consistency is obtained. Before use it must ~~by~~ be heated. The principle advantages of this glue over Neusner's is that there is no necessity to shave the p[illegible] and it comes off ē water. It is more messy however and I find no less satisfactory.

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	NaCl	8	
	H_2O	1000	

		gm. cc PE	P..
3. Sodium Bicarb.	Sodium bicarb.	10	40
	NaCl	8	
	H_2O	1000	

4. Acetic	Acetic acid (90%)	5
	NaCl	8
	H_2O	1000.

(To make up the much used Acetic & Quinine. combine two above formulae making same strength i.e Quinine 1 gm. Acetic 5 gms. Nacl 8.

5. Carrel Modification of Dakins Solution – Dauphresne Formula
Preparation of same below.
(Method employed at Carrel Hospital Compiègne.)

		gm-cc
(1) Accurately weigh.	Chloride of lime $(Ca(OCl)_2)$	200
	Dried Carbonate of Soda Na_2CO_3	100 = 200
	Bicarbonate " " $NaHCO_3$	80

(2.) Place Chloride of lime in (2 L. bottle add 5 L. ordinary water and shake well several times, at intervals + allow to stand over night.

(3.) Dissolve the Carbonate & Bicarbonate of soda in 5 L. of ordinary cold water

(4.) Turn all the solution of soda salts into the bottle of Chloride of lime. Shake vigorously 1 min. & allow to stand to allow carbonate of lime to settle to the bottom

(5) In about ~~a~~ ½ hour siphon off the clear liquid and filter thru filter paper in order to obtain a perfectly clear ~~liquid~~ solution. This should be kept in a dark place. (Here solution is placed in large flask and from time to time is stired up and poured into vessel where the salt settles out and fluid is taken off from surface without filtering. ½ a drop of Pot. permanganate is put in bottle before sending to ward.

Solution is now ready for surgical use. It contains about ½ % Sodium Hypochlorite with small quantity of the neutral salts of soda.

It is markedly isotonic to blood serum.

5

Test.

20 cc. sol. in beaker.

Few centigrams powdered Phenol sulphonphthalein.

Shake - Liquid should remain clear & colorless.

Red tinge indicates an appreciable amt. of free alkalior amt in complete reaction with the carbonate charged to some fault in the technique of preparation.

Standardization of Solution.

10 cc. Sol.
10 cc. distilled water
2 gms. KI.
1 cc Acetic Acid

Pour into this solution a decinormal (2.480/0) solution of Hyposulphite of soda in quantity just sufficient to decolorize it. If N. be the number of cc. of hyposulphite used. The percentage of hypochlorite in the solution will be given by the equation:

$$o/o = N \times 0.03725$$

When complete add enough Pot. permanganate to color pale mauve.

Errors to be avoided.

Never heat the solution
If, in an emergency it is necessary to use a mortar to prepare the Chloride of lime. Do not use anything with it but water. Never add soda salts.

$$Ca(ClO)_2^{\alpha} + Na_2Cl_3 = CaCl_3 + 2\,NaOCl$$
$$CaCl_2 + Na_2Cl_3 = CaCO_3 + 2\,NaCl$$

B.I.P. - Lancet Aug 12, 1916

Rutherford Morrison - Bipp

Procedure.

(1.) Under anaesthetic cover wound with gauze wrung out in 1-20 carbolic - Clean skin c same.

(2.) Open wound freely + inspect - Cleanse cavity with dry sterile gauze, Volkmanns spoon etc. + remove ?Bs.

(3.) Mop surrounding skin + wound cavity with methylated spirits (Cotton wool on forceps.)

(4.) Fill up the whole wound with the paste described below, dress with sterile gauze + cover with pad absorbent + bandage. No change of dressing required for days or weeks unless pain or constitutional disturbance appear.

If discharge comes through the stained pt. must be soaked in spirit and a gauze dressing wrung out in the same be applied as a further ~~dressing~~ covering.

Advantages are most striking in cases of compound fracture of long bones.

Redressing - Remove old dressing. cover wound with a dossil of wool soaked in spirit and wipe off discharge from skin c cotton wool + spirit. Plaster wound and small area surrounding skin with paste, cover c gauze pad + bandage.

The above was used by Morrison in old cases - not fresh. Where there is danger of gangrene he advises leaving the wound wide open + filled c Bipp.

~~Much~~ some of the bipp is discharged + a small sinus forms which in majority of cases heals quickly. "In the majority of cases the mass appears to be slowly absorbed.

40 cases treated without changing a dressing unexpectedly

and always getting good results. - No stitch sutures appear about a catgut.

The paste - - Bipp.
Bismuth subnitrate 1 oz. by wgt.
Iodoform 2 " " "
liq. paraffin q.s. to make a thick paste
Application with two eggspoons.

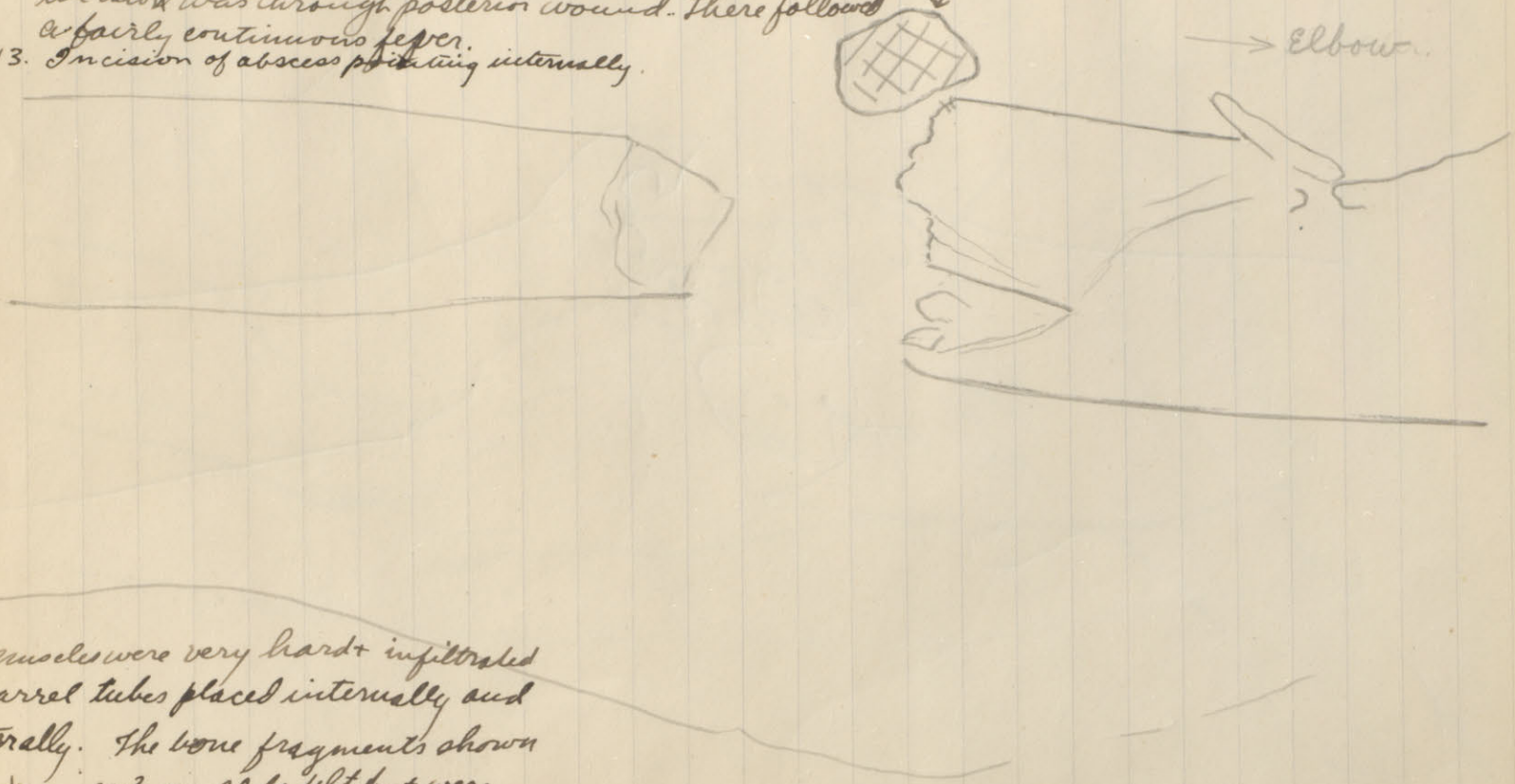
Bipp - used at 6 Rue Piccini by Dr. Skel. -
(1) Large superficial wound of L. buttock - excellent condition. Bacterial count fell to 8 in a field with irrigation by Dakins.

Wound smeared with Bipp and ~~to~~ closed. Edges not freshened. Result - brown thick discharge continued to be exuded for some time. 2/3 of suture line held. 1/3 gapped and after a period of 6 weeks I found there was a sinus under the suture line. On opening this along the line with a pair of scissors I found a very thick hard cicatrix (rising) which showed no signs of softening or change after repeated curettings & dressings.

(2)+(3) Two stumps were altered, flaps being brought down and sutured after application of Bipp.

On entrance
Carrant May 10, 1917.
Right Humerus.

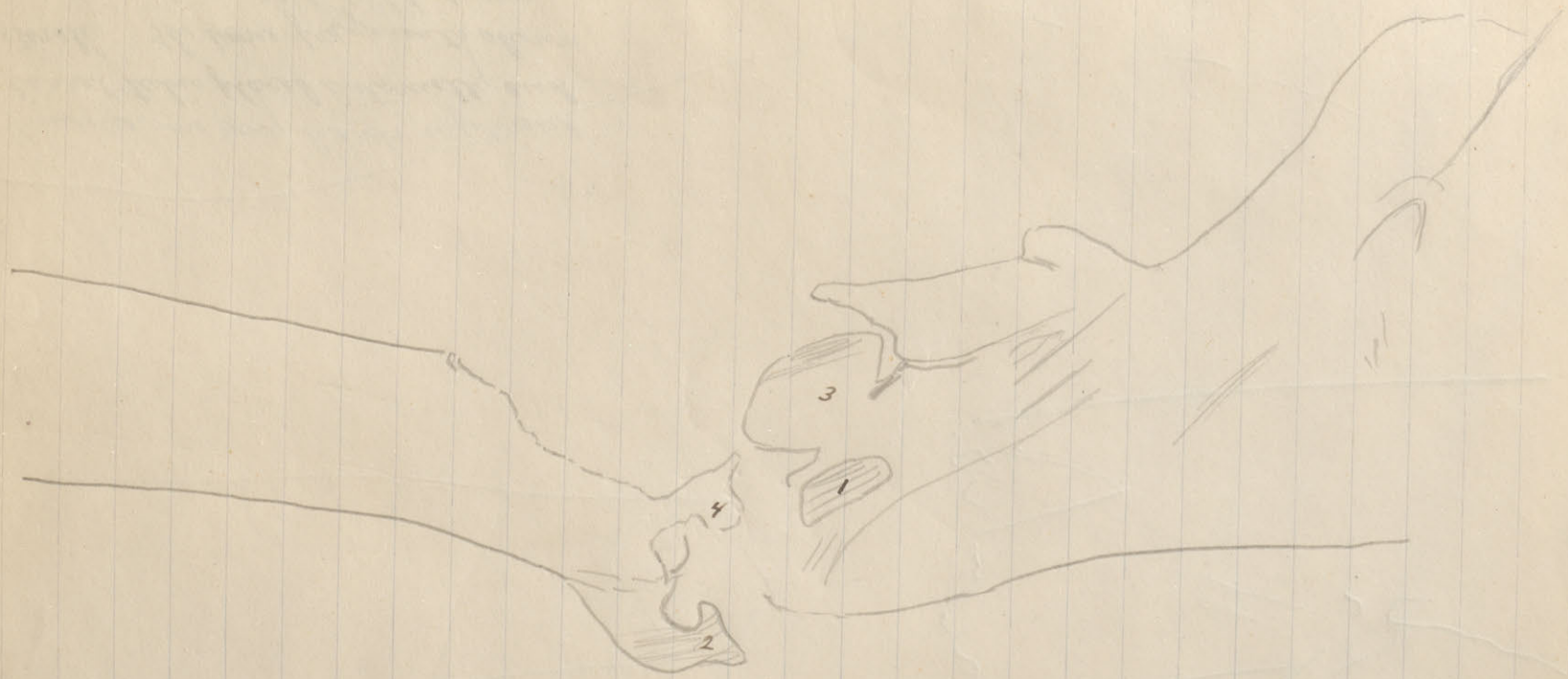
Carrant. - wound May 6.
May 7. - debridement, esquillectomy + disinfection
May 10. admitted - X ray taken. Wound postero lateral large + open
June 7. F.B. removed - Reported bone fragments attached to bone - followed by 1 week high temperature
June, July + August - occasional exacerbations of temperature no union
Aug. 29. muscles became hard + infiltrated
Four sequestra removed - see numbers next page. ~~in~~ incision was through posterior wound - there followed a fairly continuous fever.
Sept 13. Incision of abscess pointing internally.

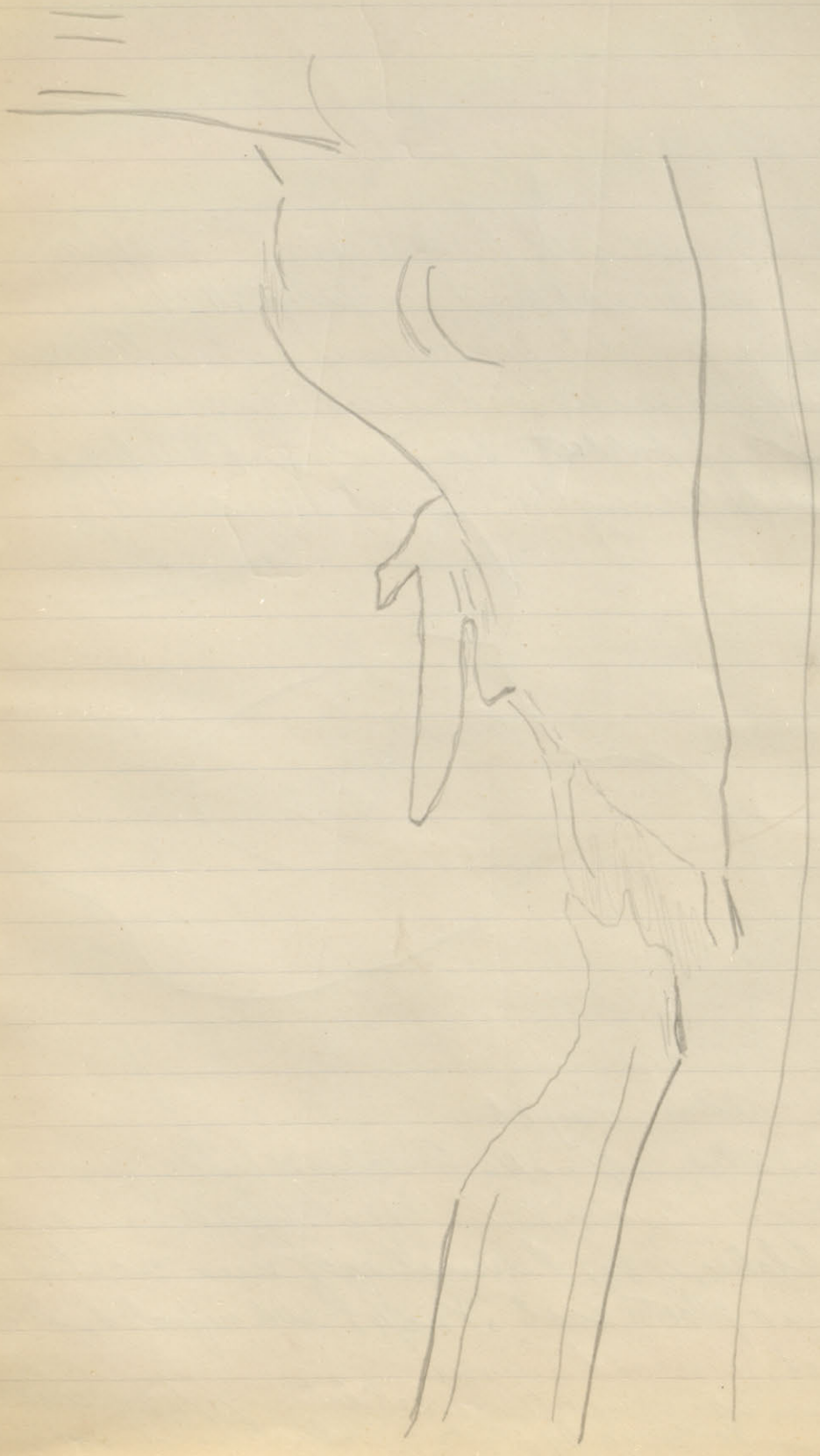


Muscles were very hard + infiltrated
Carrel tubes placed internally and externally. The bone fragments shown in X ray no 3. could be felt but were solidly attached + these left. Temperature dropped. Wounds granulated over. Beginning union.
Nov. 3. Arm taken down - consolidation.

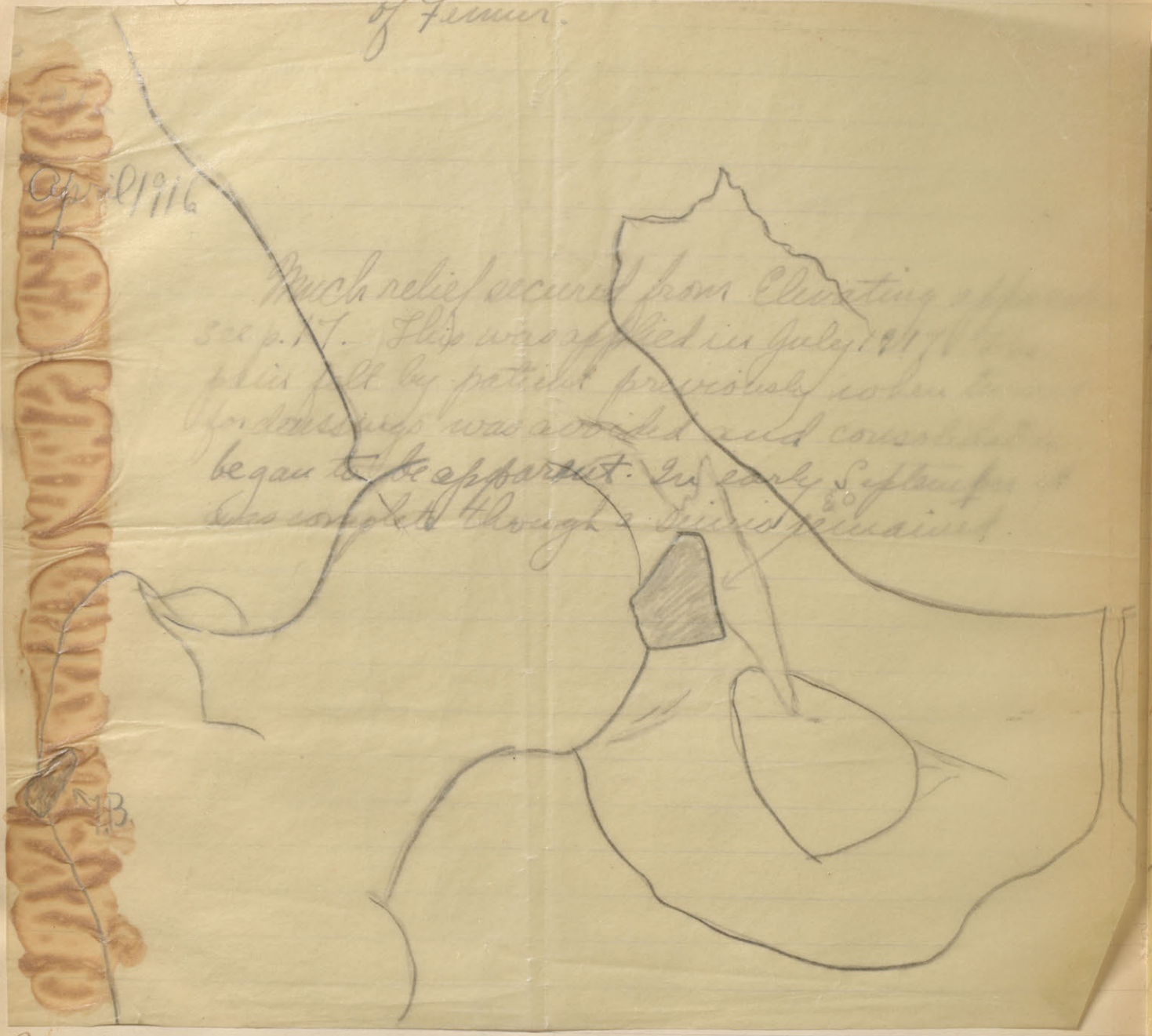
Carraut. Aug 17, 1917

Sequestra (1), (2), (3), (4) were removed





Langlois #90. – Fracture of L. innominate bone & head of femur.



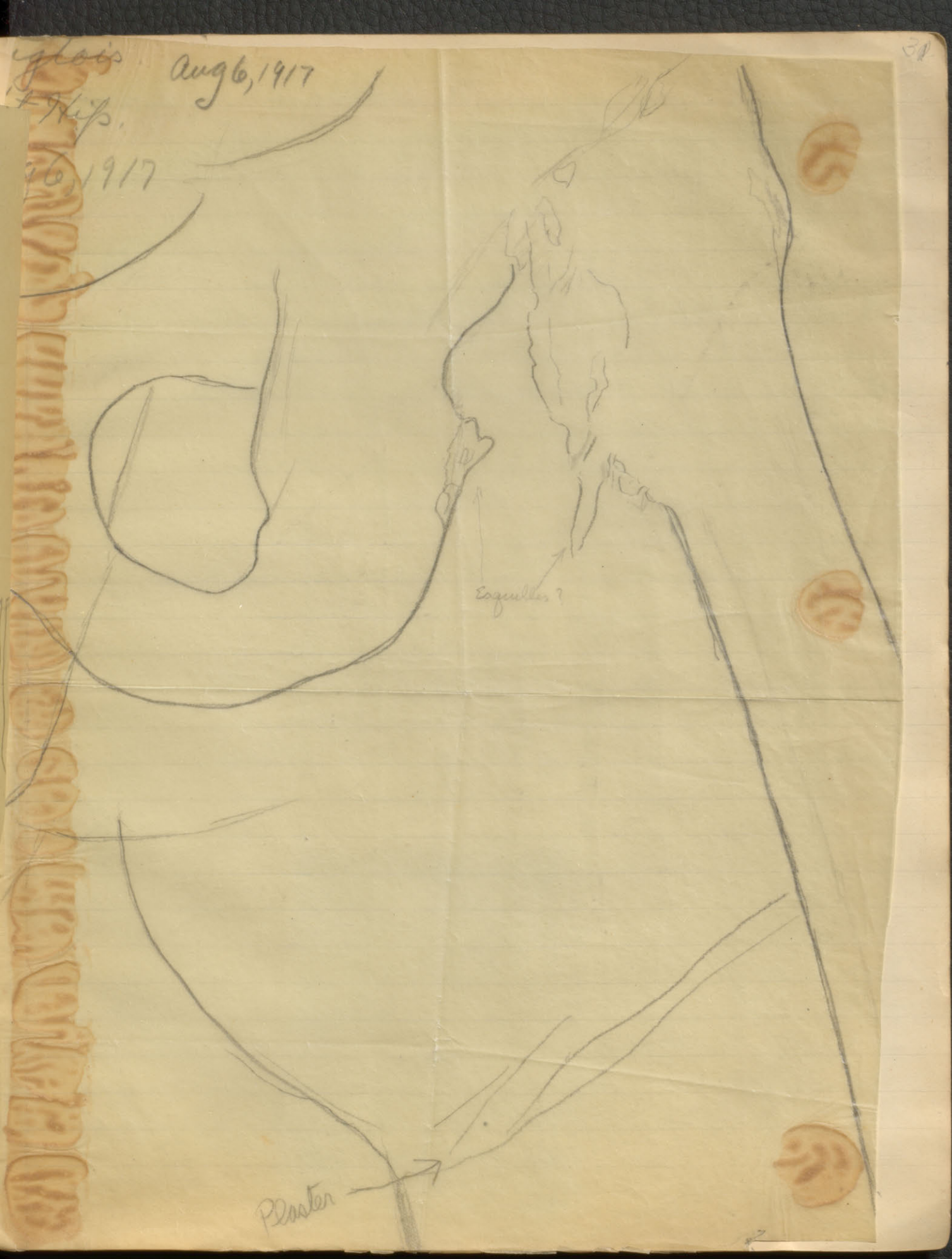
April 1916

Much relief occurred from Elevating ... see p. 17. Slip was applied in July 1916 ... plus fell by patient previously woken to ... for dressings was accomplished and consolidation began to be apparent. By early September it was complete though a little pain remained.

Wound-March 2. 1916 – Adm. May 28.

Operations – 7/7/16 F.B. Extracted, 9/22/16. Resection of head of femur followed by suspension – extension, 9/17/16 Apparatus given up; no suppuration, no consolidation, 1/17/17 Formation of new acetabulum followed by abduction in a plaster cast, 1/25/17 – Wd. infected, drains inserted, 5/5/17 Eclat removed L. arm

5/17 Plaster given up – very little consolidation 9/1/17 – encouragement + replacement in acetabulum followed by plaster & abduction + external rotation 9/–/17 cast removed – consolidation. Patient 10/–/17 Ct. using crutches a little

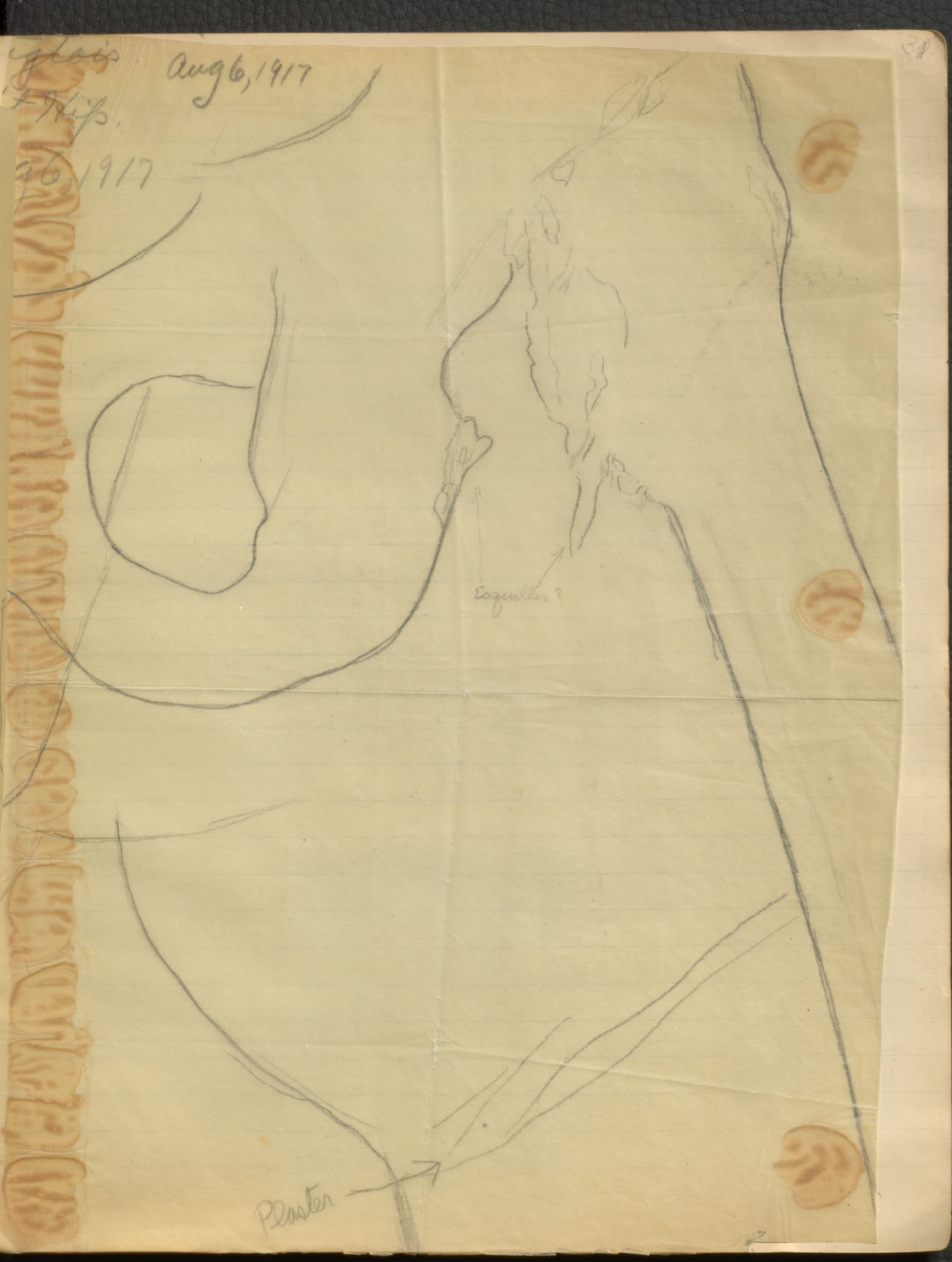

Aug 6, 1917
Esquilles ?
Plaster

Langlois #90. – Fracture of L. innominate bone & head of Femur.

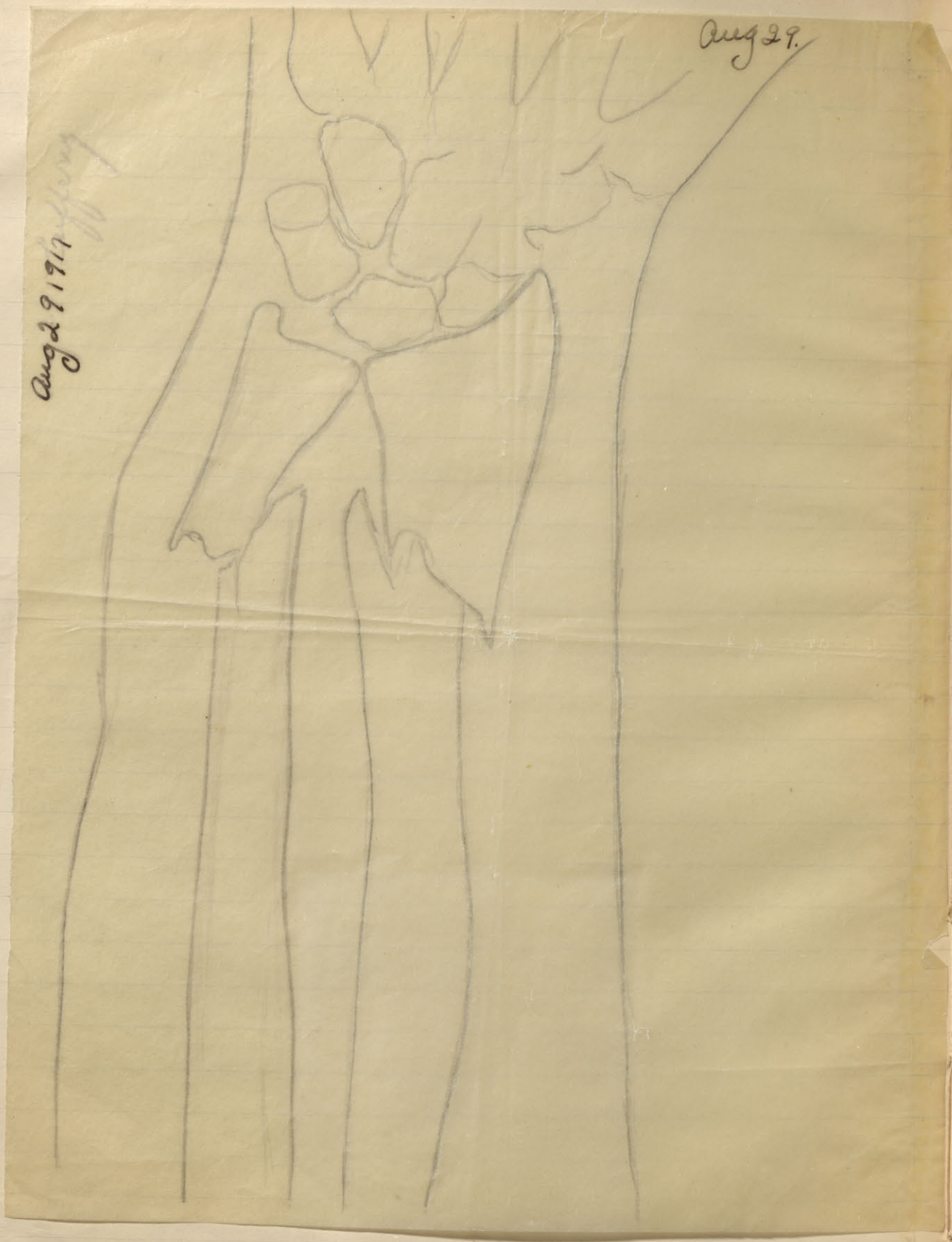
Much relief secured from Elevating apparatus see p. 17. Slip was applied in July 1917. The pain felt by patient previously when turned for dressings was avoided and consolidation began to be apparent. In early September it was complete though a sinus remained.

Wound-March 2. 1916 – Adm. May 28.
Operations – 4/7/16 F.B. Extracted, 6/22/16. Resection of head of femur followed by suspension – extension, 9/17/16 Apparatus given up; no suppuration, no consolidation, 1/17/17 Formation of new acetabulum followed by Abduction in a plaster cast, 1/20/17 – Wd. infected, drains inserted, 5/5/17 Eclat removed L. arm
5/6/17 Plaster given up – very little consolidation 9/1/17 – commencement of replacement in acetabulum followed by plaster of abduction + external rotation 9/–/17 caste removed – consolidation. Patient 10/–/17 Pt. using crutches a little

Aug 6, 1917



Aug 29.



Aug 29 1917

Tuffery. Pte.

Admitted Aug 20, 1917, Wounded Aug. 20, 1917

Diagnosis. - Irregular transverse fracture of lower ⅓ of L. radius + ulna. Seton wound

Treatment. - Cotton glove glued to hand. Forearm suspended perpendicularly ~~from~~ by strings run through rings in the glove finger ends. Wound irrigated with Acetic + guiduine per ~~Dakin~~ Carrel tubes.

Aug 3. - Haemorrhage of radial + ligature of same. Same date following operation forearm extended as follows - (see picture below. - Glove used to extend arm by means of rope over pulley at foot of bed. Counter extension by means of extension strips glued to ant. + post. aspect of forearm.

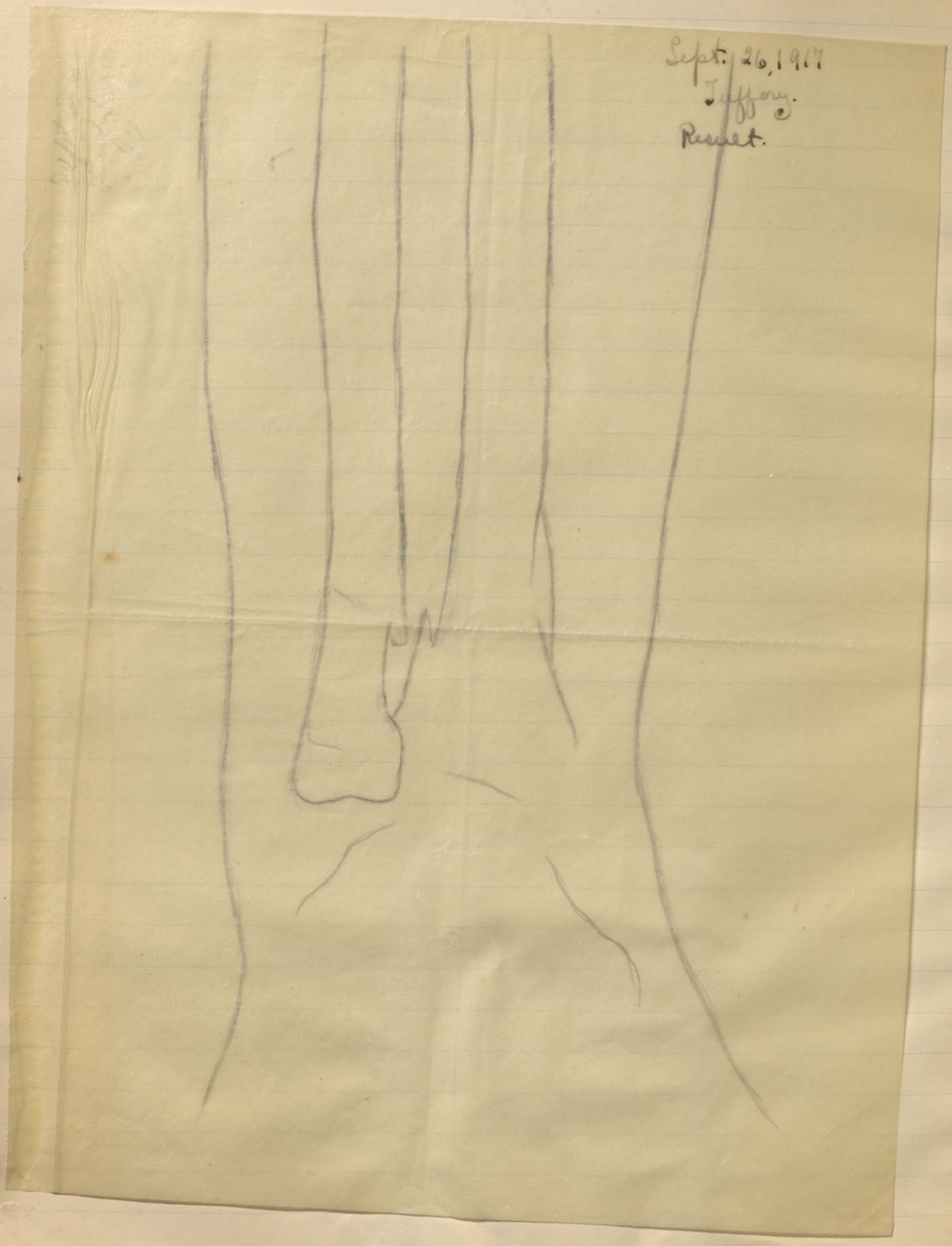
Consolidation

Arm taken down . Function of hand good though slightly stiff. Patient used to bend fingers of extended hand with other hand. Hence no real stiffness.

Discharged.

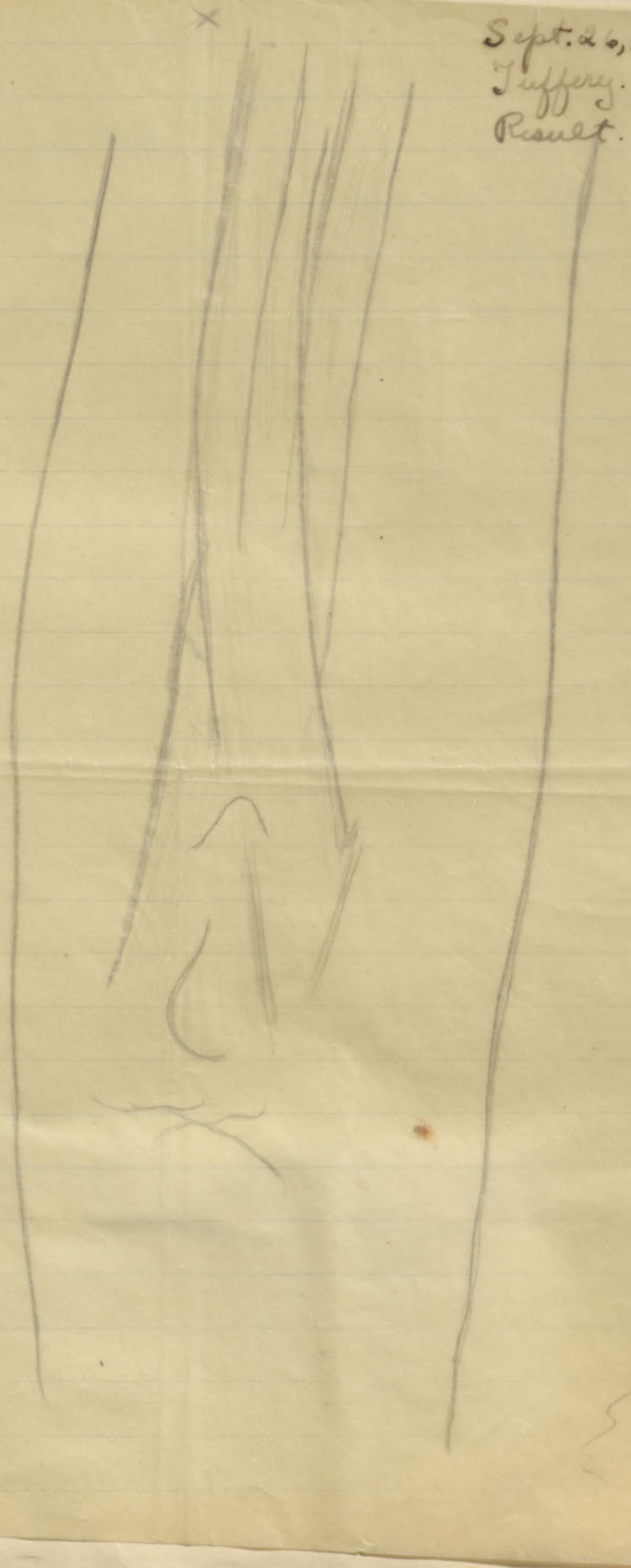
See next page for result.

See diagram p. 10.



Sept. 26, 1917
Tiffany.
Russet.

Sept. 26, 1911.
Tuffery.
Result.



Sept 26. Tuffery

Fig. 9. — Abduction extrême et rotation externe, dans un cas de fracture du col chirurgical de l'humérus. Le cadre fixé à la tête du lit a dû subir quelques modifications pour le traitement de cette fracture spéciale. (Se reporter au texte « Humérus », tiers supérieur.)

érale (fig. 5). Dans | un monta
bras, il est bon de | une poul

du cubitus, muni des bandes des-
as blessé. La traction peut être
soit par un gant collé. La contre-
nnequin également représentée sur

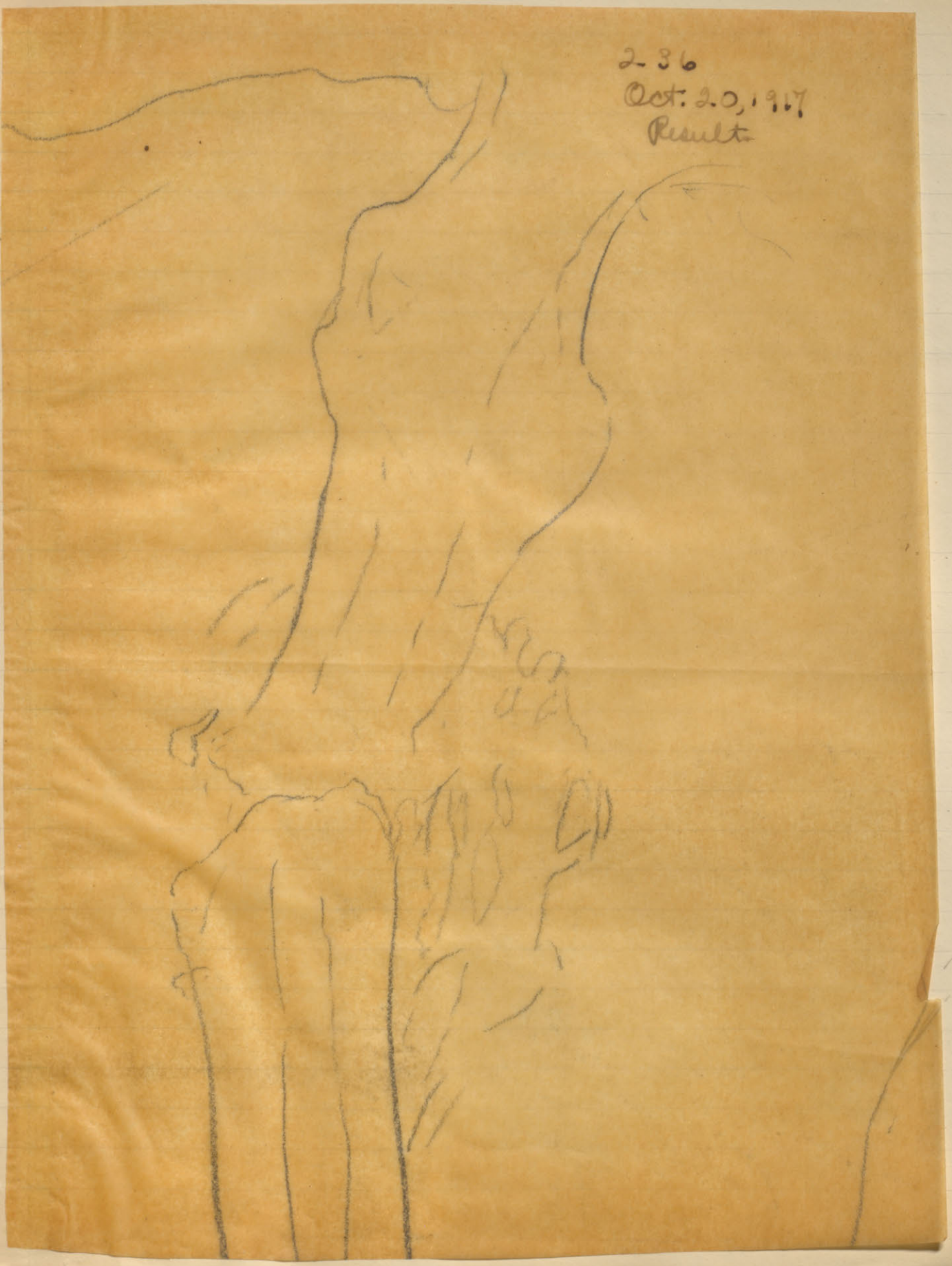
tions, la
ment où
En effet,
e en un
bilisation
de suspendre l'ava
tion verticale, soit
soit à l'aide de ban
Aussitôt que l'ét
le permet, presque

Fractured Femur - D III No 236.

Steinmann pin
Femur and
frame on th
had previo
the position o

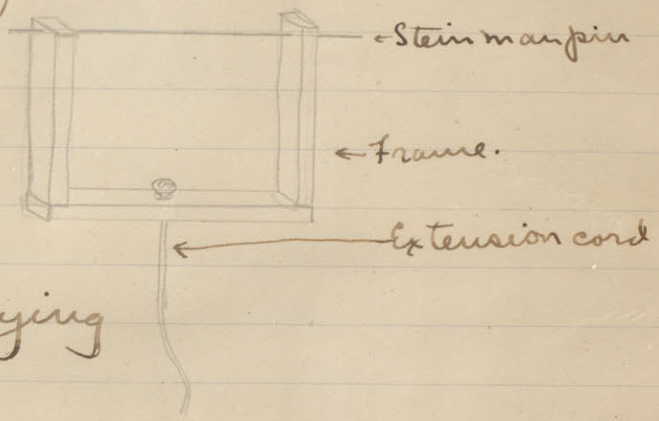
Abduction a
extension in
way secure
the result se
on the ac
calcs.

2-36
Oct: 20, 1967
Result



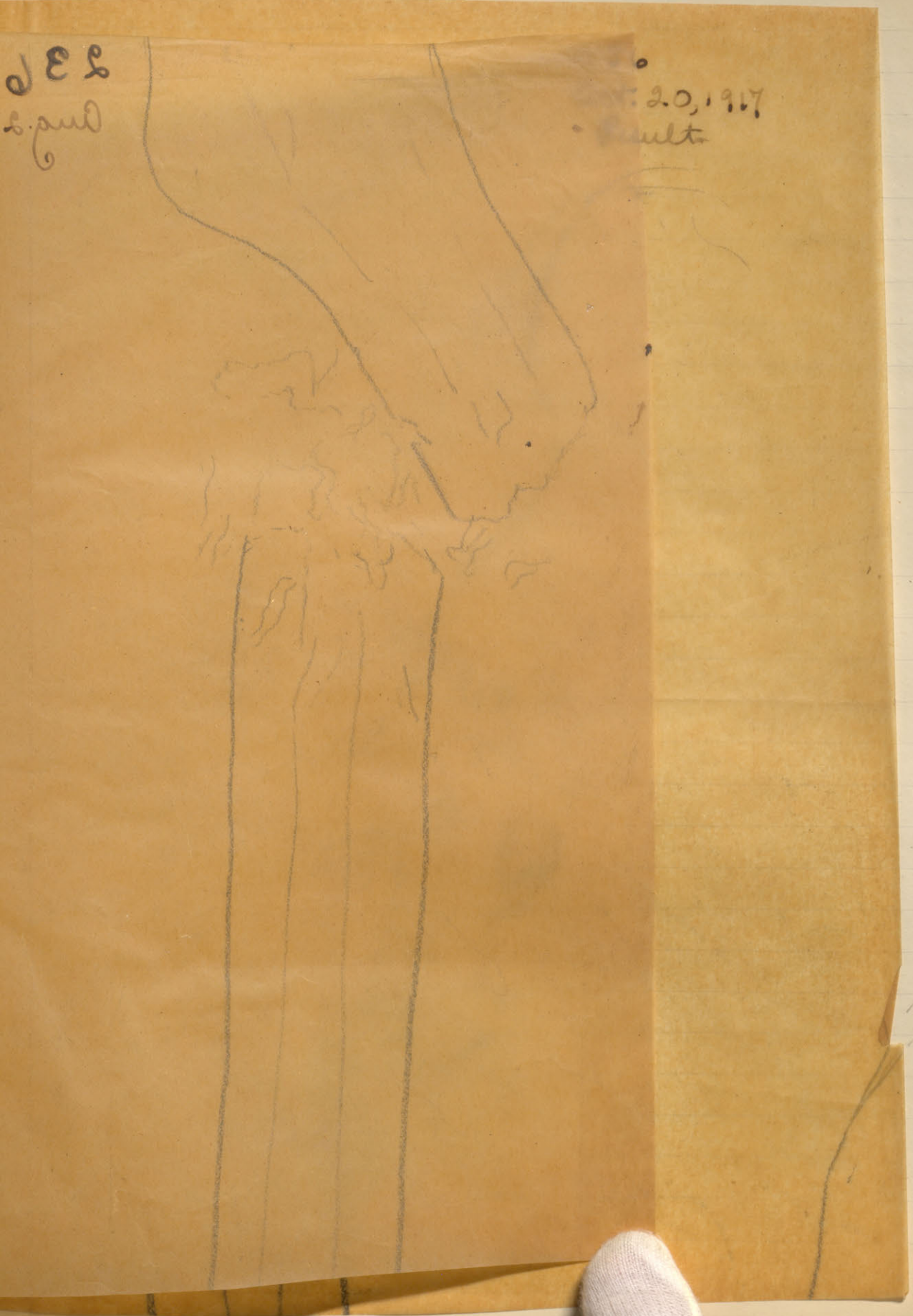
Fractured Femur - D III hs 236.

Steinman Pin passed through condyles of Femur and extension made by a small frame on this pin. Ordinary Strap extension had previously proved insufficient to correct the position of the fragments.



Abduction and extension in this way secured the result seen on the accompanying cales.

~~Abduction~~
~~and extension~~
~~femur in~~
~~Thomas Bloke~~
~~splint.~~



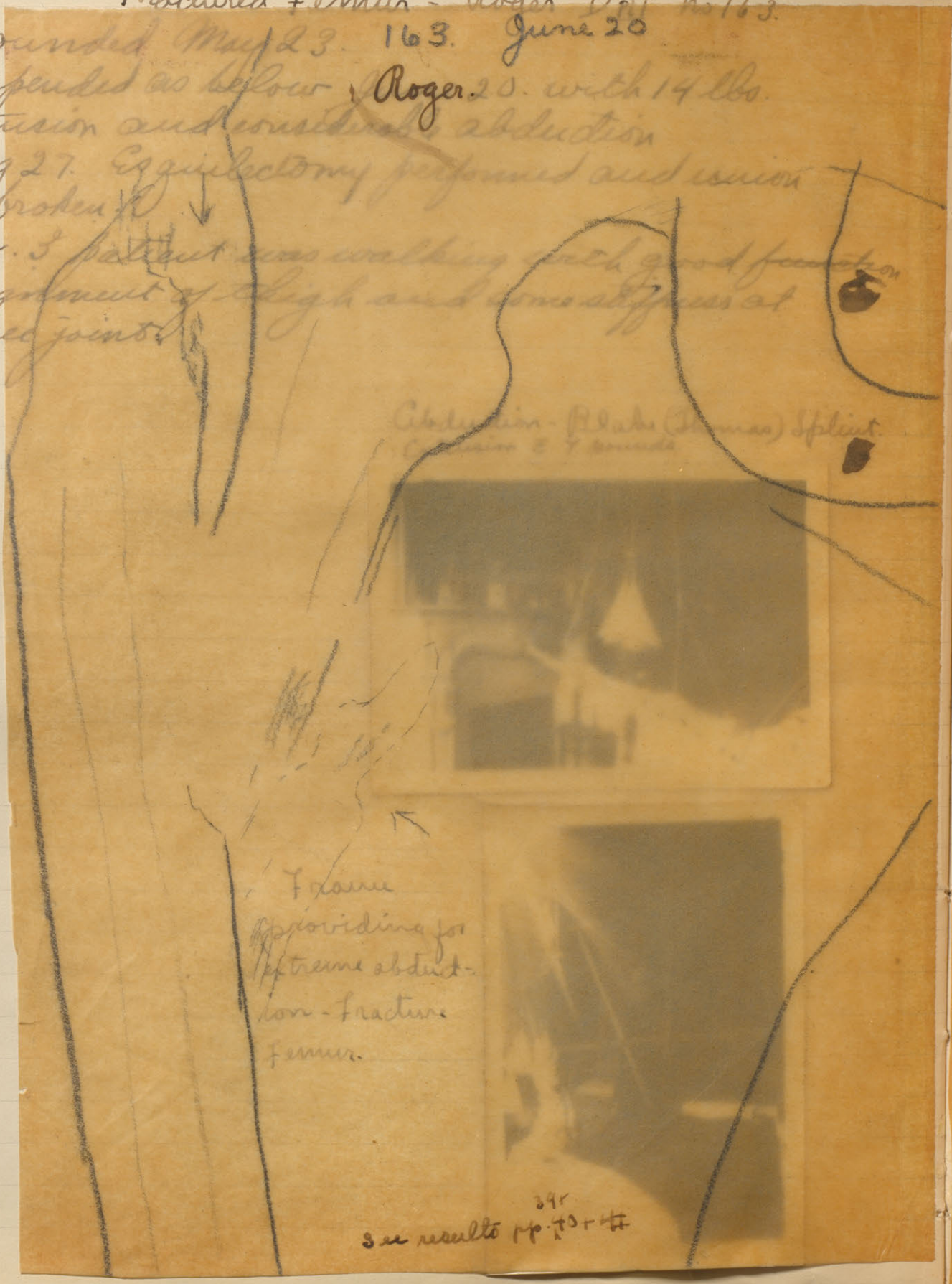
Fractured Femur - Roger Div No 163.

Wounded May 23. 163. June 20

Suspended as below - Roger. 20. with 14 lbs.
extension and considerable abduction

Aug 27. Epiphysectomy performed and union
broken

Nov. 5 patient was walking with good function
alignment & slight amt bony ankylosis at
knee joint.

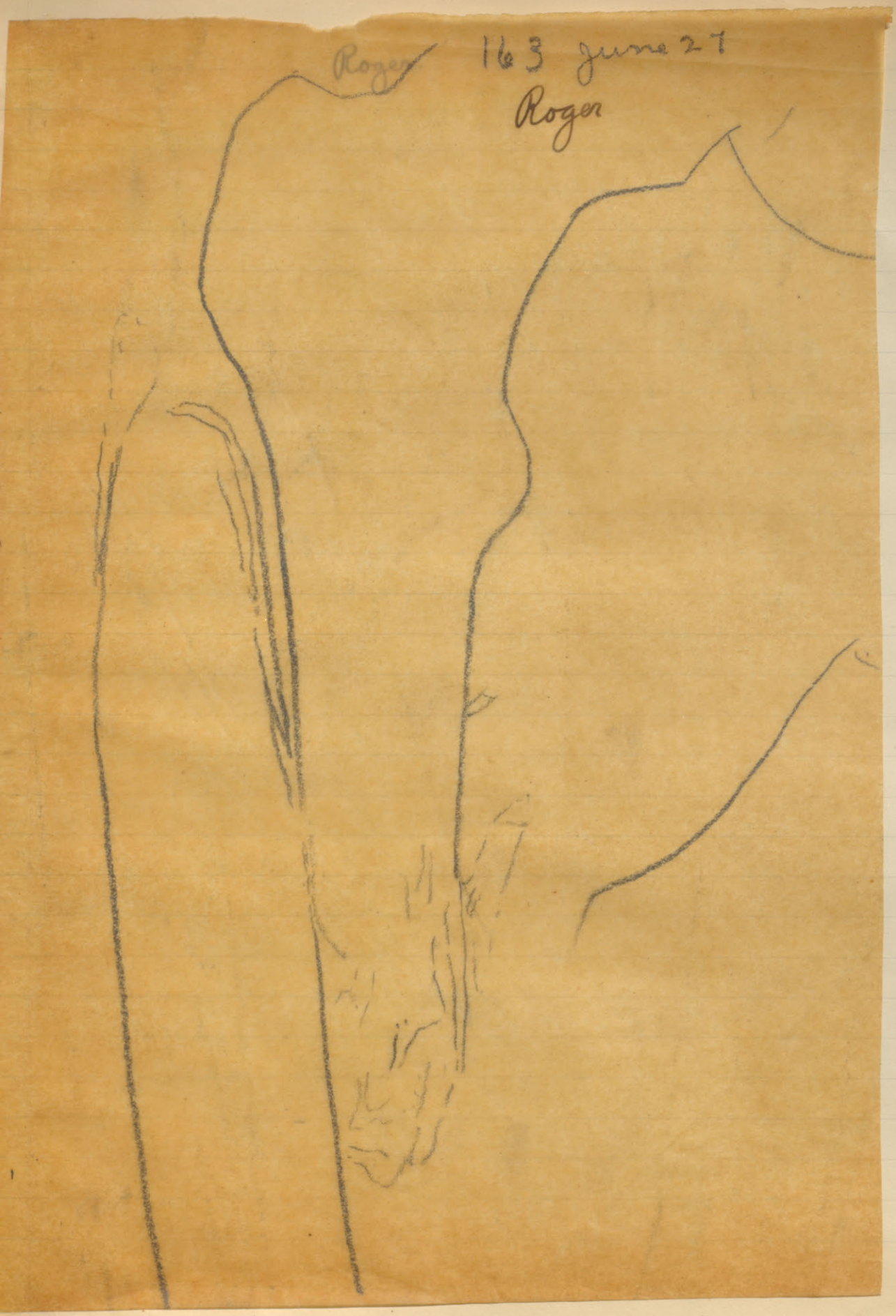


Traction providing for extreme abduction - fracture femur.

see results p. 34r

Roger 163 June 27

Roger



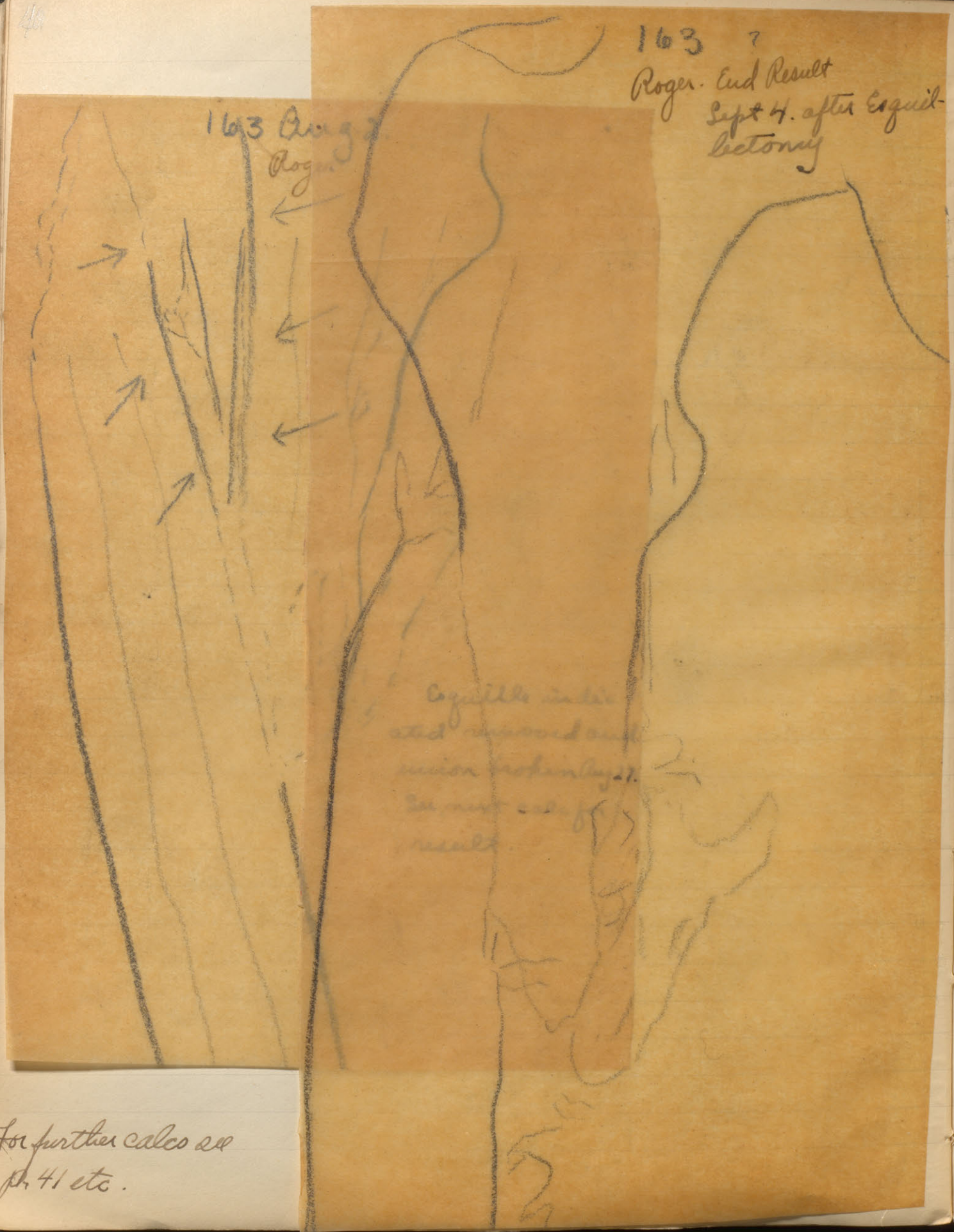
Fractured Femur - Roger D Pte No 163.
Wounded May 23.
Suspended as below June 20. with 14 lbs.
extension and considerable abduction
Aug 27. Esquilectomy performed and union
broken.
Nov. 3 patient was walking with good ~~function~~
alignment of thigh and some stiffness at
knee joint.

Abduction - Blade (Thomas) Splint.
Extension ~ 7 pounds.

Frame providing for extreme abduction - Fracture Femur.

June 27 1893

Dage. June 20 1893



For further calcs see
pp. 41 etc.

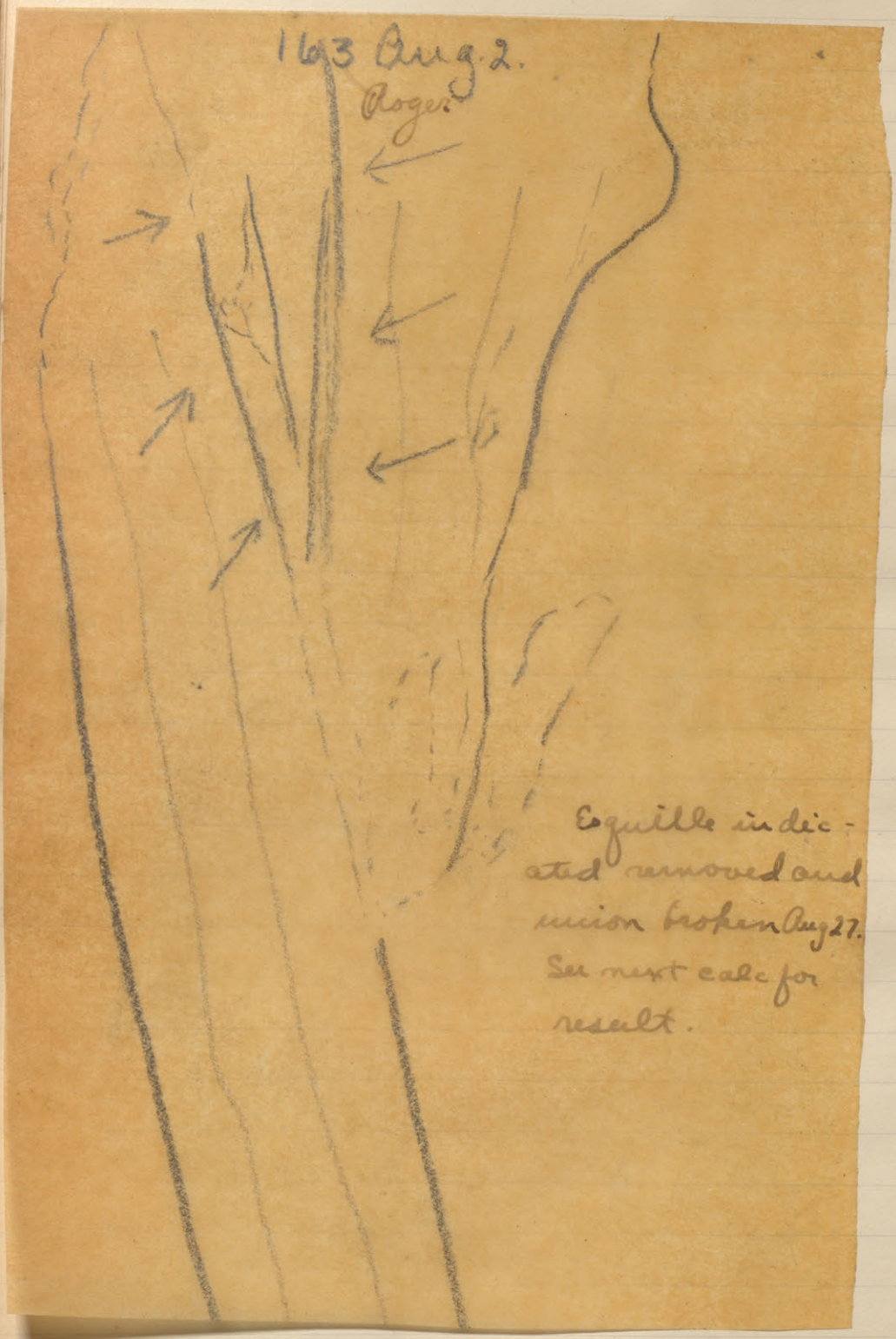
Laboratories - Dr. Taylor - American Red Cross, 6 Rue Piccini

Routine for Swabs from Wounds.

1. Swab taken with heavy wire ~~coil~~ covered c cotton from surface or sinus of wd. + place in tube plugged c cotton.
2. Direct smear made - gram.
3. Agar slant made + swab placed in broth tube - Both incubated ½ hr. at 37°.
4. At same time as 3 above. Boil 1 tube of milk and one of meat ~~to~~ for ½ hour to drive out the ~~gas~~ air. - At end of time cool suddenly to prevent air entrance.
5. Transfer swab to meat carefully.
6. Transfer swab to milk + Incubate all four tubes 24 hours.
7. Examine milk tubes. Report stormy reaction to ward as B.A.C.
8. Incubate for 24 hours longer.
9. Make smears c platinum ring (1) Bouillon (2) meat (3) Slant (as many as seems necessary for various colonies on slant. (2) + (3) on one slide making circles c blue pencil + passing from one to another without raising lense fr. slide.)
   0000 (4) milk - (~~all~~ smears made from 5 different milks on one slide.)
   Stain c gram.

1693 Aug. 2.

Roger.



Equille indicated removed and union broken Aug 27. See next calc for result.

For further calcs see p. 41 etc.

n - American Red Cross, 6 Rue Piccini

~~4~~ c round c cotton from
gged c cotton.

d in broth tube - Both

milk and one of meat ~~to~~ for
end of time cool suddenly to

all four tubes 24 hours.

g reaction to word as B.A.C.

illon (2.) Meat (3) Slabt (as many as seems
(2)+(3) on one slide making circles
without raising lense fr. slide.)
from 5 different milks on one slide.)

Sample Report on Routine Swab.

I Book for data of swabs.

408 (~~serial no.~~) (nos of swab) 1126 (~~no of swab~~) (no. placed on tubes in shading urines etc in series. Each time swab comes fr. same case a new no. is given)

27/10/17 Bigeon 469 (serial no)

Swab: Blood, Pus – Rt. Wrist

Smear: Serous, few cells, Bacteria.

B. (bouillon) Cocci, g-b (bacilli), g- rods spore bearing

Meat [gas] small oval g-b, g-b, g+ rods

Milk B.A.C. reaction – smear = Bac.

Sl. Staphyl albus + aureus (tell by looks of sl. and microscope)

II. Permanent Record Book.

Date - Rotolon No. - Serial No. - Floor - Ward - Bed - Name - Specimen for - Diagnosis - Results + Remarks.

27/10/17 1126 - 469 - P. - 28 - 3 - Bigeon Swab-Rt. wrist -

Aerobes: Staph, g- spore bearing ~~g- bac~~ spore bearer bac

Anaerobes: B.A.C.

~~g- bac spore bearer~~ other bac.

Culture Media.

1. Meat – Lean beef - grind up, mash in mortar, weigh + add equal wgt. of H_2O - place in tubes, add ½ as much again of peptone water (water, peptone + salt) Autoclave ½ hour. Before tubing make just alkaline to Ph.th. ē normal NaOH. B.A.C. reaction gives – Bubbles, pink color + odor of rancid butter.
2. Milk – (with the cream) tubed + sterilized in autoclave
3. Slant – agar slant. melt up some blood agar + pour over ordinary agar slant. 2½ agar. + 2% peptone
4. Bouillon.

For the Isolation of Anaerobes.

Get anaerobes on loop from meat culture

(Veillon Agar used - Pasteur Institute - formula

1% peptone
0.8% gelose (agar.
0.5% glucose
0.1% KNO_2.

} percentage of the total volume made

Heat 3 agar tubes till melted. With platinum loop ~~loop~~ pass from first to second to third tube. Incubate. Choose a tube where colony may be isolated, cut around tube ē a file. Apply hot bit of glass to cut, thus cracking & allow the agar to fall into a sterile petrie dish. Pass Pasteur pipette draw isolated colony into it & withdraw & inoculate anaerobic meat & milk & examine.

B.A.C. reaction - Baffles in meat & Stormy reaction in milk. At the end of 24 hours the stormy reaction may appear. If so report B.A.C. to ward. Waiting 48 hours often brings out one not appearing in 24 hours.

Raymond-307- Fracture of Head of Humerus

307 Admission

Pict up Raymond

Arm taken down about Oct 25

See Cases p. 48, 49, 50, 51, 52.

307 Print admission

307 Date?

Raymond-357- Fracture of Head of Humerus

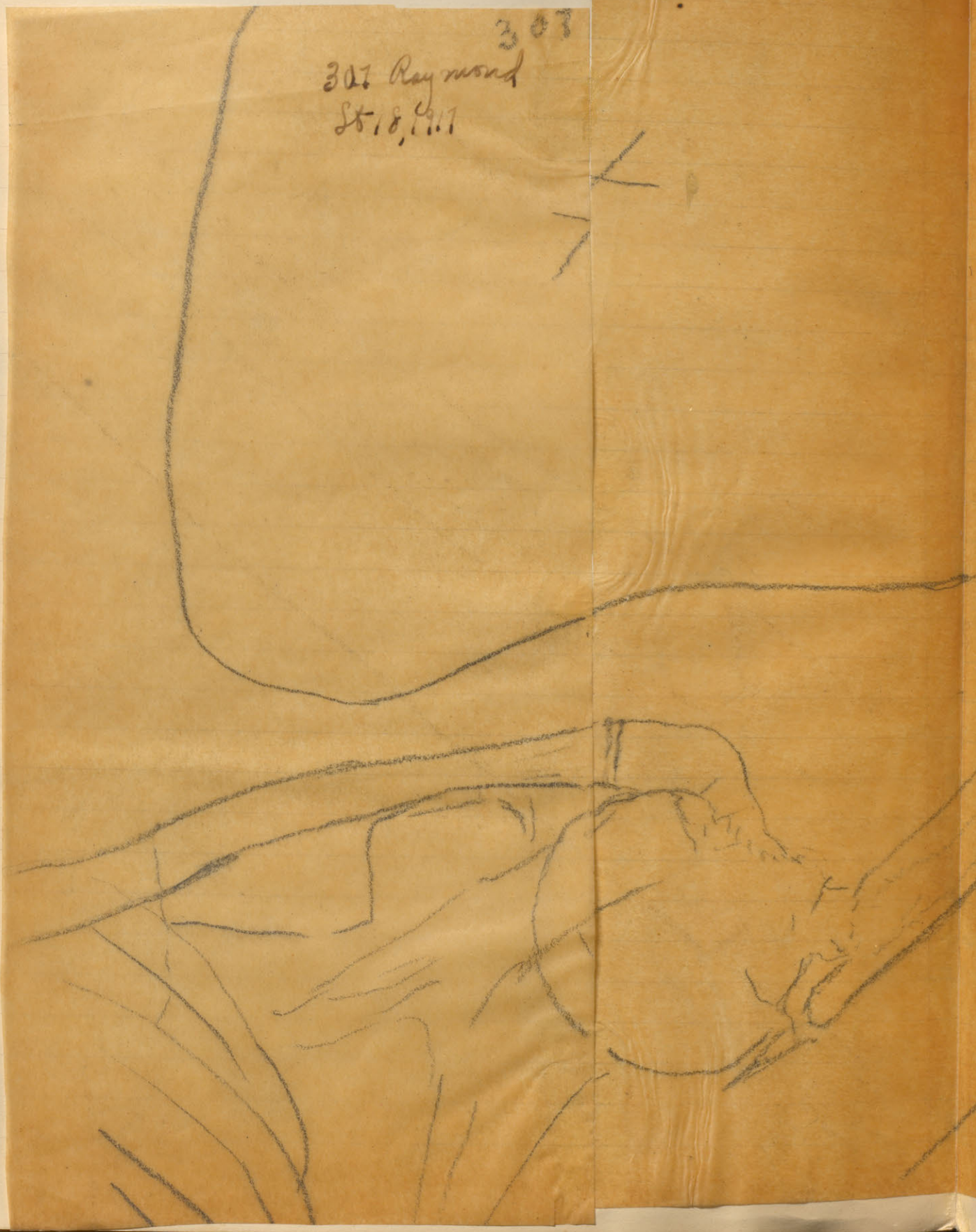
Wounded Aug 25.
Put up in Apparatus Sept 11.
Arm taken down about Oct 25. consolidated
See Calcs pp. 48, 49, 50, 51, 52.

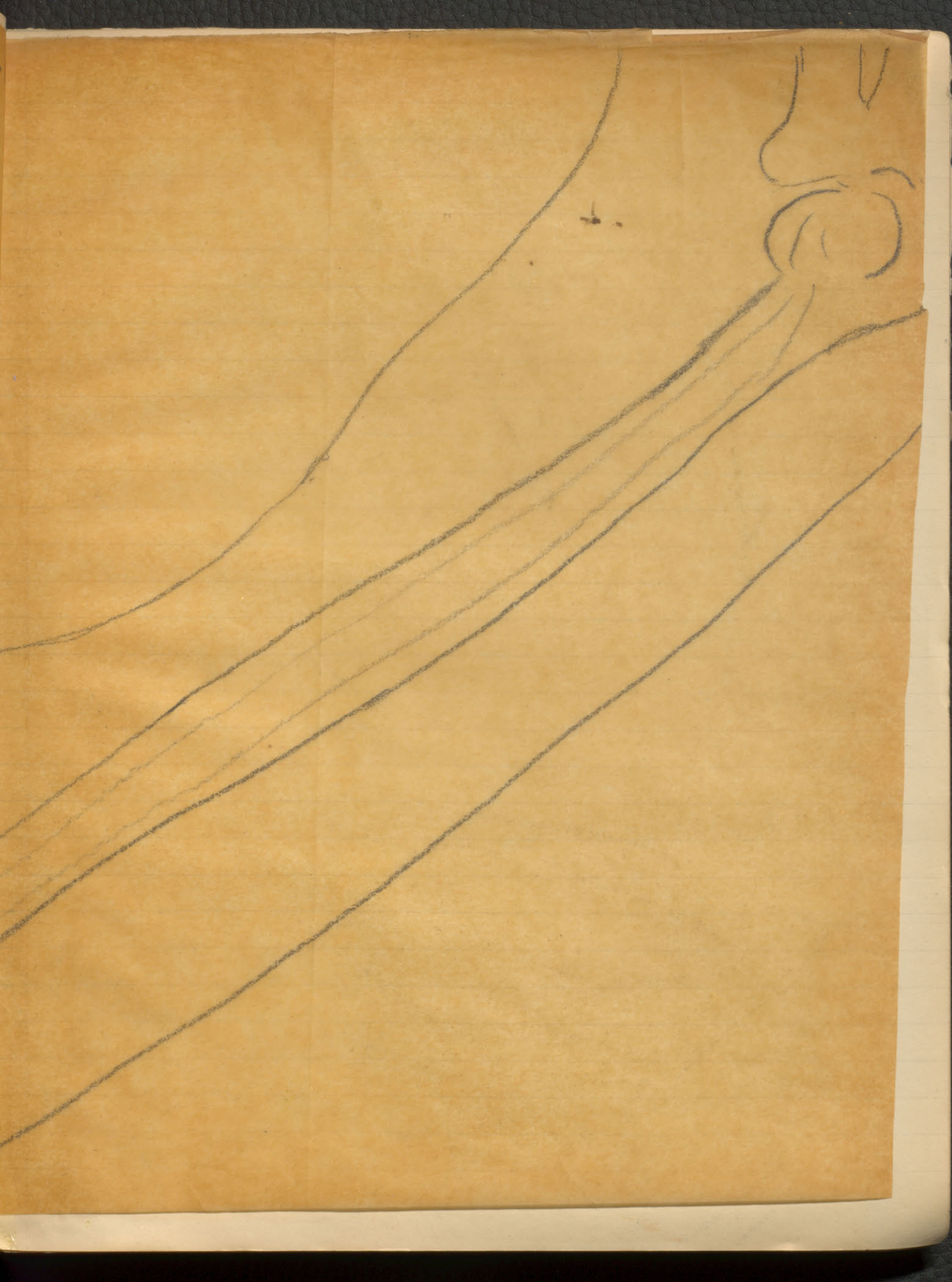
301 Chemisier
Guipure

307 Sept 18

307

307 Raymond
St. 18, Q.1





307 Oct 23, 1917

Raymond. End Result.

Peter Bent Brigham Hospital 1918-1919

Cystoscopy.

Brown-Buerger cystoscope - Wappler Electric Co. Inc. - New York.

Sterilized in tin box provided ē a lamp to distill off fumes from formaldehyde tablet.

Irrigation and distension of bladder with 2 o/o Boric.

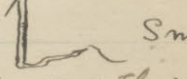
Lubricant - clear glycerine.

Anaesthetic - Cocaine 5 o/o - Female - administered ē toothpick swab.

(Alopin preferable) Male " " syringe. + milked back.

Patient in lithotomy position.

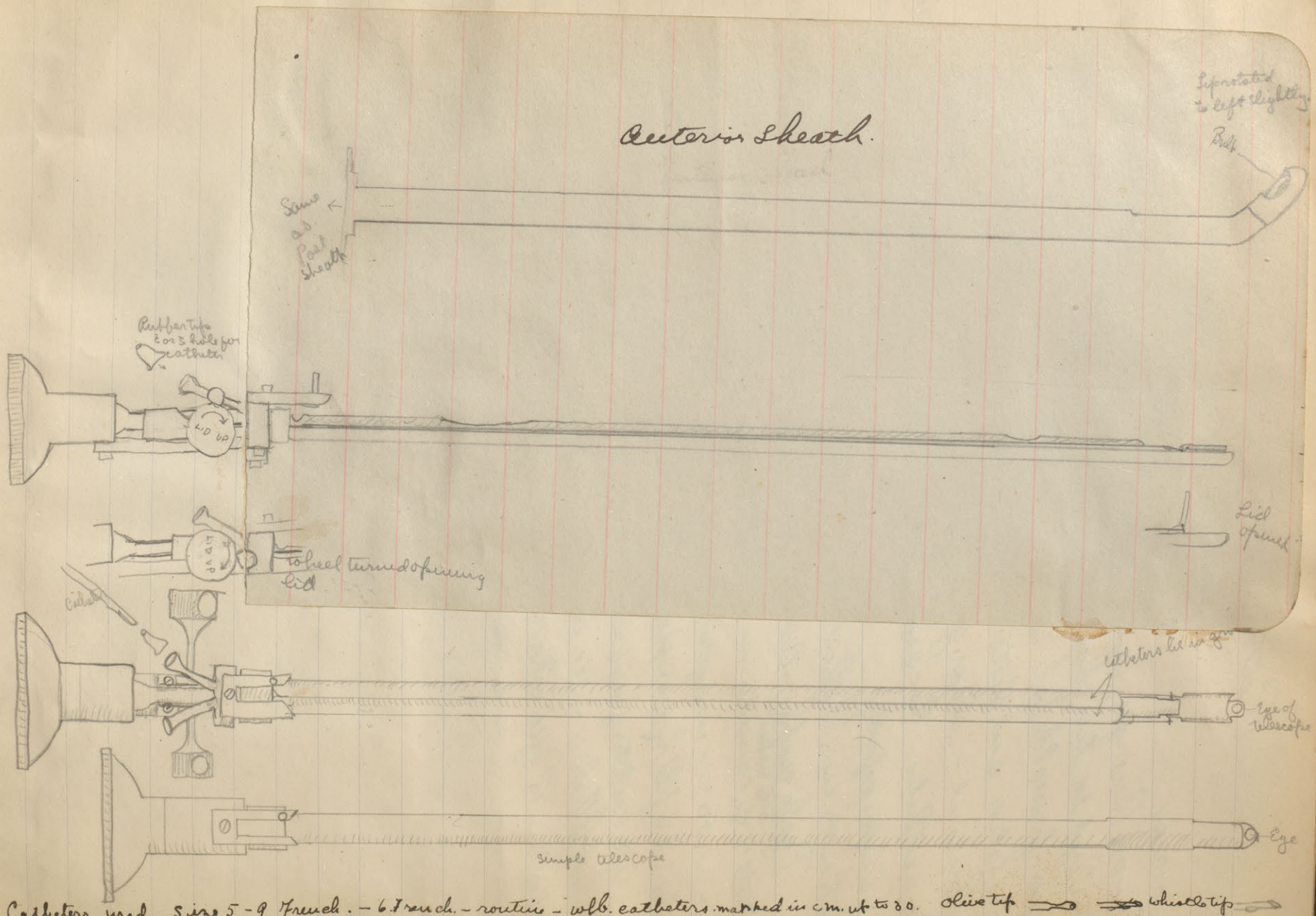
Pyelography. - Catheters in place - pt. to ~~Operating~~ X ray room. Thorium Nitrate 15 o/o (25 o/o Na Bromide) caused to run in from burrette - ad pain (8 - 12 cc)



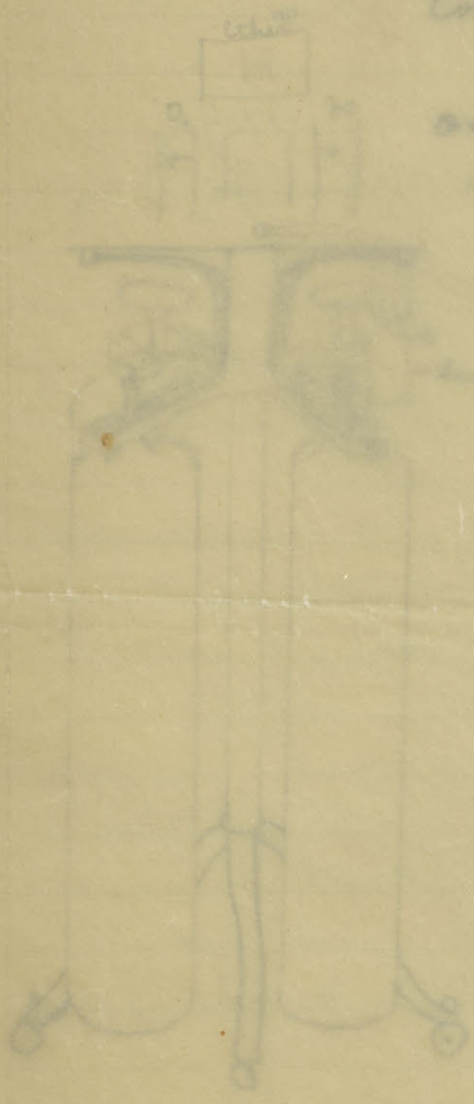
tip on burrette tube corrugated + fine point . To X ray bladder 10 o/o Thorium Nitrate.

If desired to fill hydronephotic cavity - use hand syringe at record X ray.

After Catheterizing ureters - get specimens for sediment. Then do a Phenol Sulphalein - 1 cc. intravenously. Note time of appearance of color (NaOH in tubes) Run 15' after color appears in first. Drink much water.



Catheters used Size 5 - 9 French. - 6 French. - routine - w.b. catheters marked in c.m. up to 80. Olive tip ⟹ ⟹ whistle tip ⟹



Connell Gas + Oxygen Machine

Made by Scientific Apparatus Co. New York

Oxygen meter started at .8 Litre per min + moved up to 1 = 1.4 (or higher)

NO meter started at 6. (Bag filled 5 any O_2 after breathing in tube start O_2.) Increase of NO above 6 indicates not supposed to deliver any more gas

Nasal tube & safety pin in end 14 cm. in length

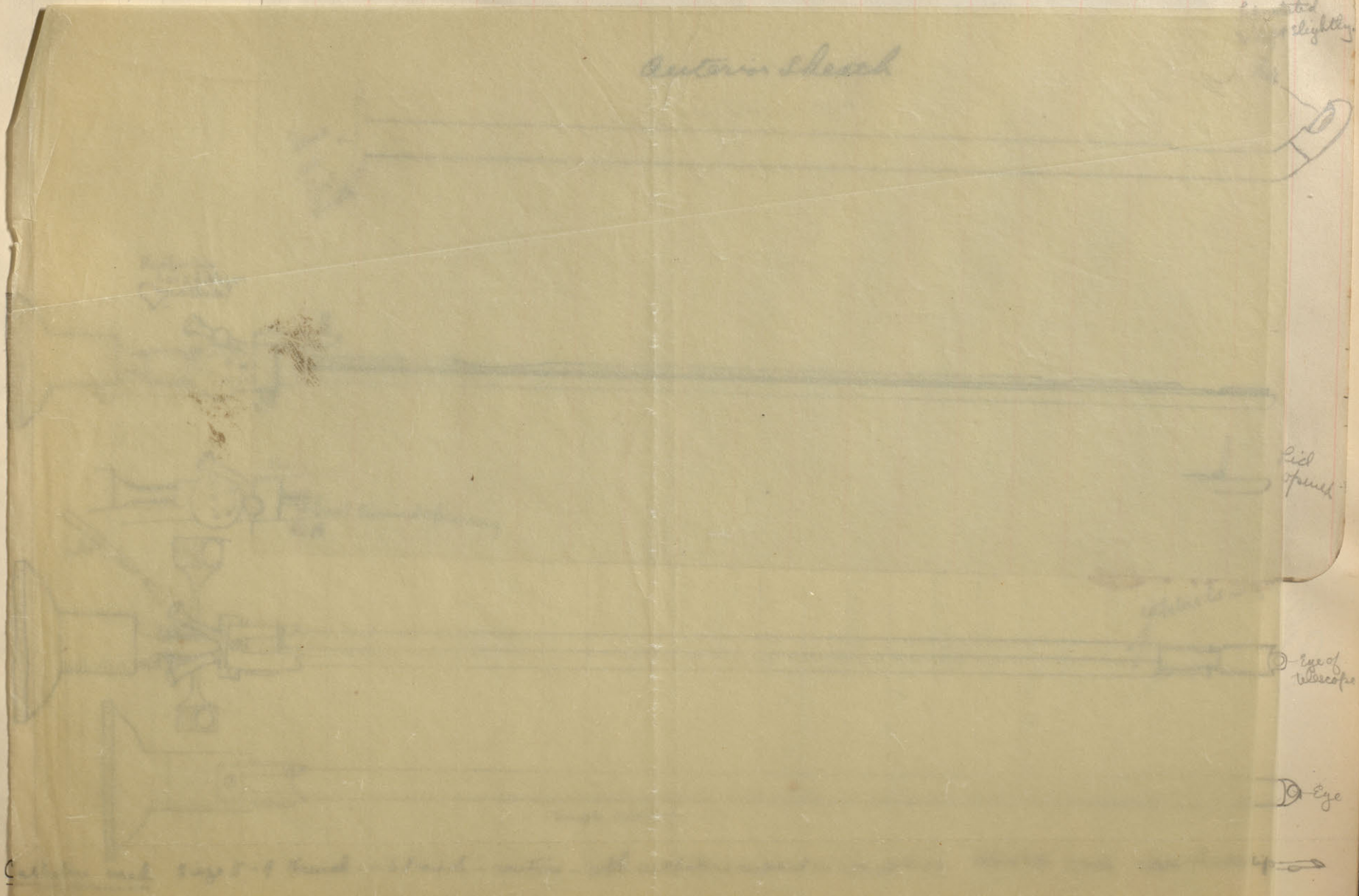
Cases having had previous ether. Start a few drops of essence of bitter orange

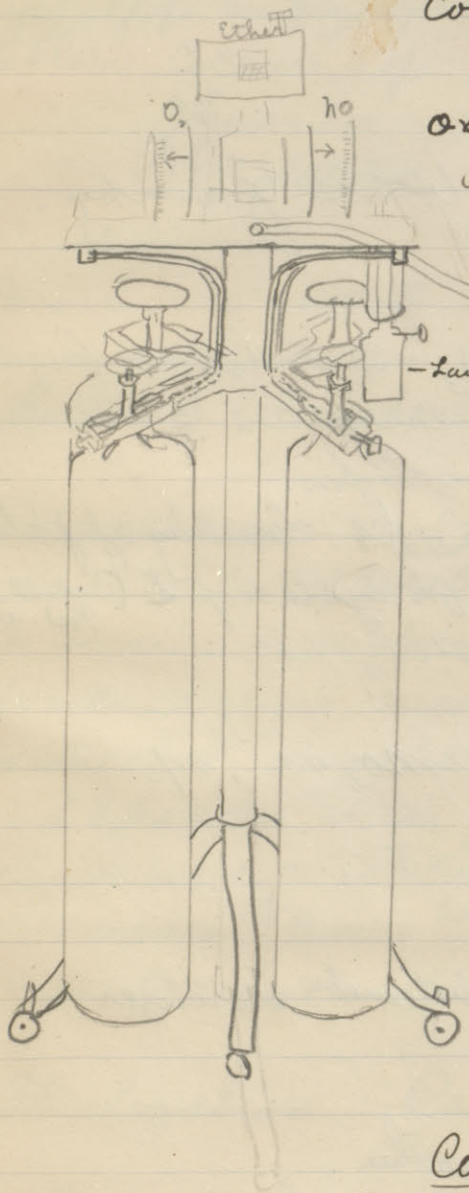
Ether cone [image] wire cone. - 12 ! thickness of gauze on it and also covered & duck Cone & metal hub 2-3 cm in diameter

Connell Ether Machine -

Gas ether & air @ varying pressures. Anaesthetize well start machine at 70 mm Hg. pr of ether and increase to 90 rapidly. Then lower - regulating at 70-75 mm. Bottle used for nasal tube - used for gas cone &c.

Tripler on Cushion 4" x 4"


Centrin Head
Eye of Microscope
Eye



Connell Gas + Oxygen Machine.

Made by Scientific Apparatus Co. - New York

Oxygen meter started at .8 Litres per min + moved up to 1. or 1.4 (or higher)

NO meter started at 6. (Bag filled ē any O_2 after breath or two start O_2.) Increase of NO above 6 ss leters not supposed to deliver any more gas.

Nasal tubes ē safety pin in end 14.5 cm. in length.

Cases having had previous ether. Start ē few drops of essence of bitter orange

Ether cone.  wire cone. - 12 ? thicknesses of gauze over it and whole covered ē duck cover ē small hole 2-3 cm in diameter.

Connell Ether Machine -

Gives ether ē air at varying pressures. Anaesthetize well. Start machine at 76 mm. Hg. pr. of ether and increase to 90 rapidly. Then down - running at 30 - 45 mm. Catheter used for nasal tube. - Used for goitre cases etc. Mark on catheter 14.5 cm.

Spinal Anaesthesia.

Novocaine ~~Cocaine~~ Gm. 0.150 dissolved in 3 cc. water in test tube. Boil down to 2 cc. Then inject in 4th L. interspace, draw out cer. sp. fluid + reinject. Tip man head down to carry cocaine up. Duration 1½ hr. to 2 hr. Leg amputated perfectly.

G. U. Dept. of D.D. - Wm C. Grimby.

Routine Solutions.

1-5000 $AgNO_3$, 1-1000 $AgNO_3$ - Sterile H_2O → Varying strengths
1-1000 Pot. Permanganate - Bladder irrigation.
2 Liter Bottles
1% Sol. of Lysol - disinfect cystoscopes.
Formaldehyde 1 - Alcohol 250 (70%) 1 - cleaning up patient.
Carbolic acid 2.5% 1 formerly used for cystoscopes (Instill 2 cc. into Post. urethra.
Boric Acid 2% - irrigation & cystoscope.

$AgNO_3$ 1% } Pelvic wash. pyelitis
$AgNO_3$ 10% } Not to be used except in extremis
1% usual.
$AgNO_3$ 4%, 5% - pelvic wash
NaOH. 10% - reaction in Phenol Phth. test.
~~Boric 3. Water 500~~ ?.
~~HNO_3 conc~~. ?
Alcohol 70% + ~~denatured~~ alcohol Lamp under formalin sterilizer.
~~Neutral Formalin + Zenker~~ ?
~~Acetic acid Glacial~~ ?
Argyrol 10% ? 25% urethra, Bladder washes.
Protargol .5% - female urethra in gonorrhea, also male.
Indigo Carmine 0.5, Nacl 0.6, Water 100 ? Chromo urethroscopy. 15 i.v. wait 15 min.
~~Sol. Hyposulphite 1.7, water 100~~ ?
Tincture Iodine - Paint Cervix + Vagina - gonorrhea
Copper Sulphate 25% - Chancroid cauterization - reference G. U. diseases A.M.A. 1917 p. 17.
Formalin pastiles - 2 vaporized to sterilize the web catheters. Or bichloride may be used for ~~ureteral catheters~~

Iodoform 1 gm. Guaicol 5 gm. Olive oil 100. – soothing + antiseptic for bladders.

Zn. Sulphate gm 0.2, Liq. Pb. Subacetate dil 100 cc = Astringent Inj. for dup urethra

Corrosive Sublimate 1-10 (40 cc dil to 500 = 1-1000)

Icthyol 10% in glycerine – tampon in Gon. + salpingitis

Sterile flasks Cocaine 5% – 2-3 cc. ♂ + ♀ urethra cystoscopy

" " Glycerine lubrication "

" " Petrolatum " instrumentation

H_2O_2 !

Soda Bicarb, Soda Borate ää ʒi, water ʒvi – Swab mucous off os cervix dissolves mucous

Litmus paper.

Muko (tubes) L. F. Clapin Co. Boston Mass. – Lubricant to glove fingers + Sounds + catheters.

Table (men's room. (1) Bowl – Bichloride 1-1000 c tips to urethral syringe + Kollmann "McElroy Safety Triumph" covers. – (2) Metal urethral syringe. (3) glass plunger syringe for cocaine in male urethra etc. (4) Bulb urethral syringe (5) powdered gloves, (6) muko. (7) medicine flasks. (8) Sponge sticks in alcohol. (9) dry sponges (10) Alc. sponges. (11) Tooth picks + Swabs and spatulas, (12) cotton fluffs, (13) scissors (14) flasks – cocaine 5%, glycerine +, petrolatum, (15) 500 cc flask for bladder wash fluid. (16) Kollmann. (17) Basins (18) urine glasses.

Also. – towels + hole towels.

Sterilization. Catheters in formalin vapor box & bougies Sounds – boiled.

Cystoscopes – cleaned c soap + water. Placed in 1% Lysol before using + transferred to sterile H_2O.

(In house, sterilized c formalin vapor)

Ureteral catheters – in formalin or bichloride (1-1000)

Cysto scopes – All Brown-Berger made by Wappler Co ie. Ant. + Post. sheath + urethroscopes. Re operating scope fits either ant. or pos. sheath. Braash Scope

alright for direct fission.

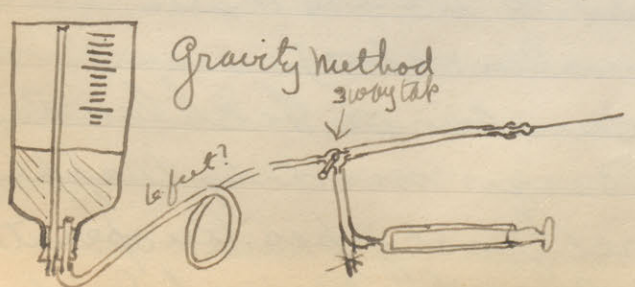
Followers (for filiforms) cleaned in soap + water + wiped & alcohol sponge before use. Filiforms sterilized same as Coudes etc.

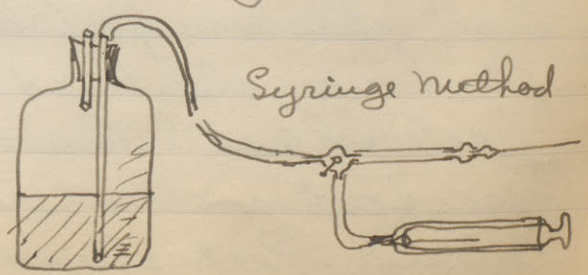
Lights for cystoscope - 4 ever ready batteries in a wooden box. Or a step down on direct current.

Kollman covers boiled each time.

Diarsenol Arsphenamine. - P.B.B. Serological O.P.D.

Apparatus. (1) Glass stoppered bottle - graduated in 25 cc. c file. Sterilize with stopper off & wrapped in gauze. (2) Long solid glass stirring rod for breaking up a last fragment of arsphenamine if necessary. (3) 1 cc (or 5 cc) pipette for dropping in NaOH. (4) Long high pressure rubber tubing with a three way stop cock. (5) Rubber stopper with glass tubes attached to fit bottle. (6) Wassermann needle to fit connector on tube. (7) Sterile salt solution, normal at blood temp. ~~distilled~~ twice distilled over glass. (8) NaOH. Chemically pure. 15 o/o (or 20 o/o) Diarsenol Arsphenamine made by _____





~~Tuberculin~~.

Procedure.

Dosage - first time 0.2 gm. or 0.4 gm. according to size. Next time boost to .6 gm. F.

File Kiarsenol ampoule & break off top. - Powder in bottle (1) Add at least 25 cc. saline (7.) for each 1/10 gm. kiarsenol. (Do not have it too hot nor too cold) Stopper with glass stopper and shake till dissolved. Add drop by drop the Na OH (8.) until clear (neutral) Make up enough for the days treatment at one time & just to withdraw out from bottle the dosage desired.

Patient recumbent, clean up arm & sterile towel under. Lobe & tubing syringe etc all sterile. Scrub up. Insert needle in tubing holder & insert in vein with 3 way tap connecting syringe with needle and saline in syringe. Determine that you are in vein by drawing on syringe & reinjecting ~~without~~ without producing hematoma. Then, in gravity method allow kiarsenol to flow in. Or by syringe method draw out by turning tap + inject & syringe.

Tuberculin. Dosage.

allright for direct fission.

Followers (for filiforms) cleaned in soap + water + wiped & alcohol sponge before use. Filiforms sterilized same as Catheters etc.

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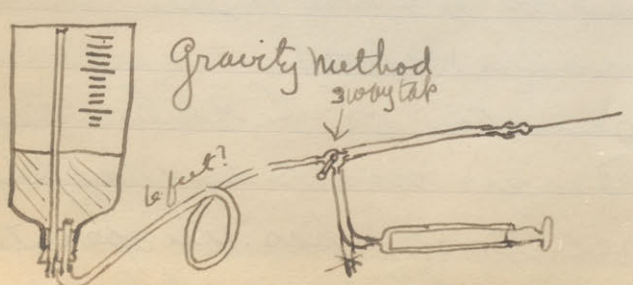
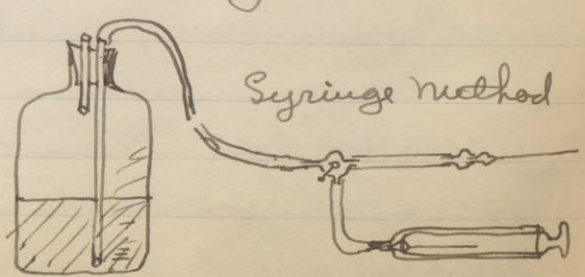
Apparatus. (1) Glass stoppered bottle. - graduated in 25 cc. & fils. Sterilize with stopper off & wrapped in gauze. (2) Long solid glass stirring rod for breaking up a last fragment of arsphenamine if necessary. (3) 1 cc (or 5 cc) pipette for dropping in NaOH. (4) Long high pressure rubber tubing with a three way stop cock. (5) Rubber stopper with glass tubes attached to fit bottle. (6) Wassermann needle to fit connector on tube. (7) Sterile salt solution, normal, at blood temp. ~~distilled~~ twice distilled over glass. (8) NaOH. Chemically pure. 15 o/o (or 20 o/o) Diarsenol Arsphenamine made by _____





~~Tuberculin~~.

Procedure.

Dosage – first time 0.2 gm. or 0.4 gm. according to size. Next time boost to 0.6 gm. F.

File dearsenol ampoule & break off top. – Powder in bottle (1) Add at least 25 cc. saline (T.) for each 1/10 gm. dearsenol. (Do not have it too hot nor too cold) Stopper with glass stopper and shake till dissolved. Add drop by drop the NaOH (8.) until clear (neutral) Make up enough for the days treatment at one time & just & redu out from bottle the dosage desired.

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Tuberculin. Dosage.

DOSAGE OF OLD TUBERCULIN			METHOD OF INCREASE.
#6 – 0.1 cc of #5	plus 0.9 cc of H_2O	0.1 cc = 0.0000001 cc. O.T.	1 – 0.1 cc 2 – 0.1 cc 3 – 0.2 cc 4 – 0.2 cc
#5 – 0.1 cc of #4	" 0.9 cc of "	0.1 cc = 0.000001 cc. O.T.	5 – 0.1 cc 6 – 0.2 cc 7 – 0.2 cc 8 – 0.5 cc 9 – 0.5 cc
#4 – 0.1 cc of #3	" 0.9 cc of "	0.1 cc = 0.00001 cc. O.T.	10 – 0.1 cc 11 – 0.2 cc 12 – 0.2 cc 13 – 0.5 cc 14 – 0.5 cc
#3 – 0.1 cc of #2	" 0.9 cc of "	0.1 cc = 0.0001 cc. O.T.	15 – 0.1 cc 16 – 0.2 cc 17 – 0.5 cc 18 – 0.5 cc
#2 – 0.1 cc of #1	" 0.9 cc of "	0.1 cc = 0.001 cc. O.T.	19 – 0.1 cc 20 – 0.2 cc 21 – 0.5 cc 22 – 0.5 cc
#1 – 0.1 cc of O.T.	" 0.9 cc of "	0.1 cc = 0.01 cc. O.T.	23 – 0.1 cc 24 – 0.2 cc 25 – 0.5 cc 26 – 0.5 cc

TREATMENT FOR BICHLORIDE POISONING.
(As worked out at St. Luke's Hospital, New York.)

1- Copious stomach lavage with water or induced copious vomiting. After washing out stomach leave 250 c.c. of milk and 100 c.c. of 50% albumen water (white of egg).

2- Stomach wash every 3 hours first day same as no. 1. Afterwards twice daily until urine is free from mercury.

3- Every alternate hour give 8 oz. of alkaline solution, viz., potassium bitartrate
sugar aa ℥i
lactose
lemon juice aa ℥i
boiled water ad ℥xvi

4-Every alternate hour 8 oz. of milk.

5-Murphy drip of the following solution: potassium acetate, one drachm to 1 pint of water.

6-High colon irrigation twice daily.

7-Daily sweat in hot pack or by other means.

Urine is secreted from abbve treatment in large amount. Treatment is to be continued until urine shows negative tests for mercury on 2 successive days.

Instruction for Acute Urethritis Cases.

Cleanliness.

Wash the end of the penis at least twice a day with warm water and soap, retracting foreskin, etc.
Immersion of penis in glass of hot water t.i.d. is good.
Urination with penis immersed in hot water is advised.
Care to clean hands after urination, injection or handling.
Do not use common bath tube.
Care not to leave discharge on toilet seat.

Discharge.

Gauze bandage about penis held in place by foreskin if present.
Gauze bag if no foreskin.

Rest.

Get as much sleep as possible. Reduce physical exercises. Riding instead of walking. No dancing, bowling or exertive sports. Sexual rest. Absolutely no intercourse. Prevent erections if occurring, (cold bath before retiring or NaBr. gr. 30).
Suspensory or Jock strap in the acute stage.

Food.

Absolutely no alcohol or soda fountain drinks.
Spices are forbidden.
Coffee and tea in moderation.
Increased flow by drinking much water in acute cases.
Moderate water intake in posterior cases as frequency of urination may cause urethral irritation to persist.

Bowels.

At least one movement a day is necessary.

Internal medication -

Rx. "Compound Salol"

Salol	gr. iiiss or	.2 gm.
Copaiba	mins. X	1. cc.
Oleoresin cubeb.	" V	,5 cc.
Pepsin (1-3000)	gr. 1	.06

Mix and make capsules.
Sig. One after each meal t.i.d. with full glass of water.

or

Rx.

Salol	gr. IV	.2
Oleoresin sant.	min. V	.5
" cubeb.	" V	.5
Olive oil	" V	.5
Pepsin (1-3000)	gr. 1	.06

Adminster same as above.

or

Ol. Santali gm. 0.5 T.I.D. P.C.
Capsules.

Sandalwood oil or Wintergreen oil mins. 10 as above. If the above upset the stomach.

Stearosan in 10 min. capsules t.i.d.
Give the above (unless distressing) from the time the patient comes until the urine is clear of pus (not shreds).

For irritability at bladder neck and dysuria -

Liquor potassae	8 to 25 gr.	.6
Tinc. Hyoscyamus	15 to 35 gr.	.9
Aquae cinnamomi	q.s. ad. 100 gr.	6.

Teasp. in water q 3 hours.

give Hexamethylen~~amine~~ Gm. 0.3 T.I.D. P.C. in H_2O
with Acid Sodium Phosphate Gm. 0.3 T.I.D. P.C. " " glycerin & alk.
if there are signs of bladder infection.

---

men.- Gonorrhea.

cervix if indicated with 10% AgNO$_3$ on swab or
tr tincture of iodine. Vagina with tinct. of iodine
urethra with finger, if there is pus either swab or instil
protargol into urethra. Force fluids, rest etc.
glycerine ~~and~~ or glycerine & ichthyol tampon + remove
hours.- Douche B.D. Pelvis Menthol Composites.
quart of H_2O.

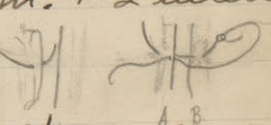
Operations P. B. B. Hospital.

alcohol 70% 25-0
Formaldehyde 1/7 for hands + field.
Bichloride for hands + field 1-5000

Appendicectomy.

Cleaning up method - for all operations. i Shower + wash in P.H. ii a towel above + below area over clothes. iii Alcohol, sponges taken in bare hands 3 sets. iv. Bichloride 1-5000 sponges 2 sets. v. Lap sheet (oblong opening) vi. Towels fastened ē towel clips. vii Double sheet below + above + one over feet. (First ass't has previously scrubbed 5 min.. then alcohol + Bichloride 1-5000 5 min.) Alc. + Bichloride again to hands, gloves in water, gown. (or gloves in Bichloride

Incision. (R. rectus) over middle of R. rectus from beginning a wall off the off + skin ē gauze (~~nuclepsis~~ nuclepsis pad + mayo-niham clamps two cm below level of umbilicus, about 8 cm. in length, rectus muscle reflected medially, take care to only push nerves up or down. Peritoneum with forceps first then knife. Kelleys on peritoneum. ~~Follow~~ Appendix out of wound. #1 chromic cat gut to tie ~~vessels~~ in append. and mesentery cut mesentery, Appendix crushed at base ~~and~~ with ~~Kelley~~ clamps which is then moved up a little and clamped. Plain cat gut #1 about Place + provisionally tie a silk purse string all off with saline gauze appendix in crush line + tied. Use tie to steady. Cautery between clamp and tie. Pair of Halstead (straight) clamps on base of appendix + ~~tie the cut. Stump~~ cut tie. Invert stump ē Halsteads + if necessary Muc. memb. (Allis) clamps on caecum near. Tie purse string after inversion. Insert + tie another purse string or a mattress ~~stitch~~ to further invert. Mesentery over site. Close peritoneum with #1 double plain cat gut. continuous (Dr. Jacobson) or with #1 single continuous chromic (Dr. Cheever) Same stitch may be used to draw rectus back in place after closing peritoneum. #2 interrupted chromic cat gut for fascia. Mattress stitch. →



Side A is overlapped ~~on~~ over side B. Stitch 1 is taken away from operator and 2 toward him. Fat + fat fascia approximated by #0 plain cat gut. Skin incision by silk on ~~plain~~ straight needles Bichloride sponge to skin, Silver foil over incision. gauze + adhesive strips.

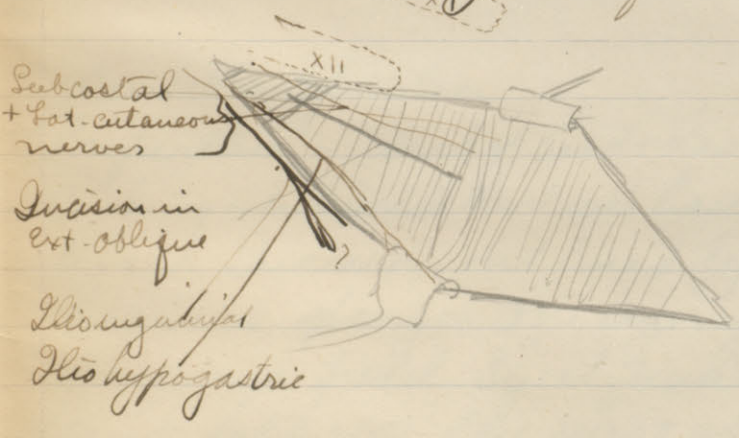
Pyelotomy for Stone.

Iodine + Alcohol Prep. – Pt. on side ⊂ sand bag under side and table broken. Gas + Oxygen.

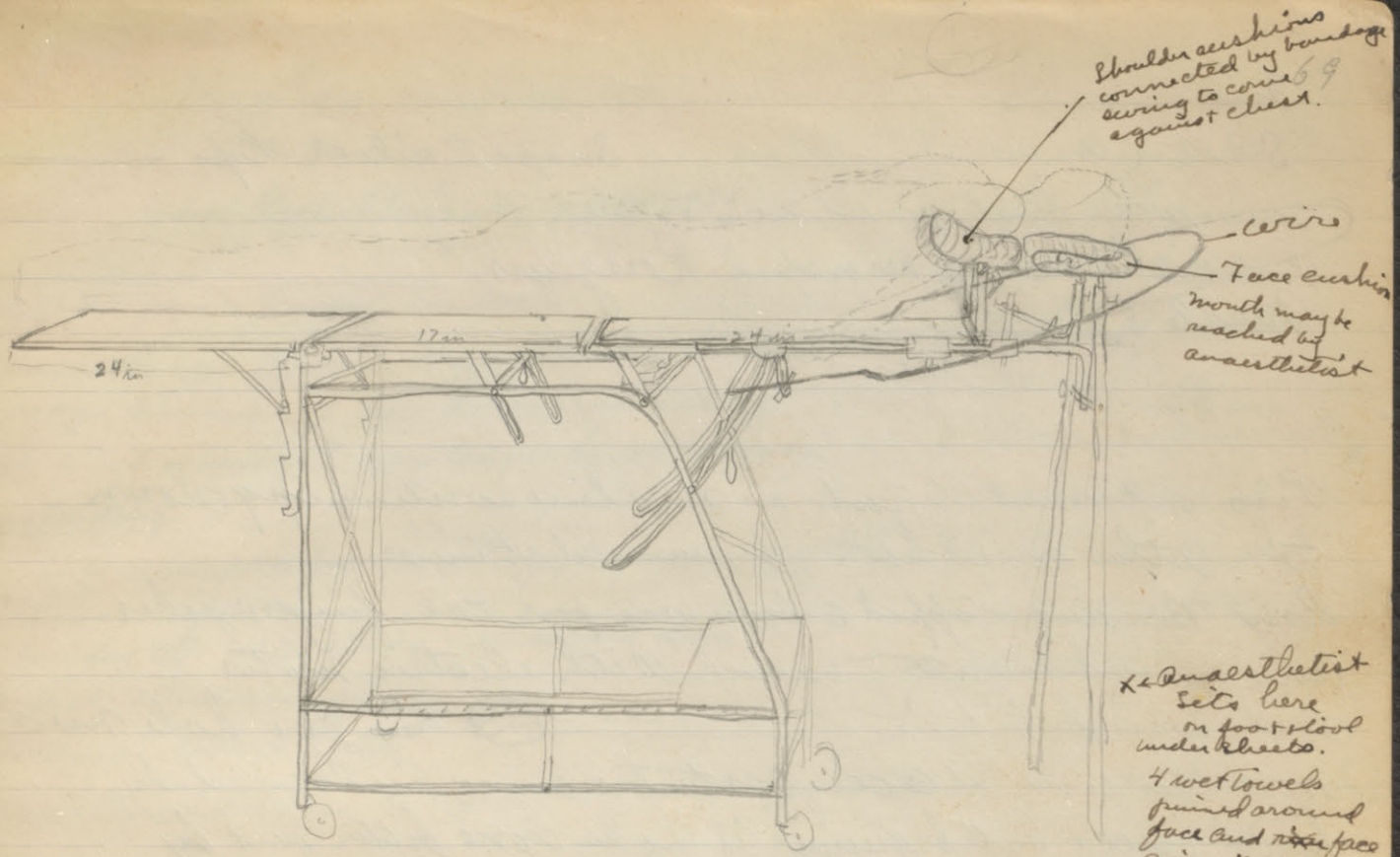
Flank incision – From just below 12th rib + ant. to Lat. Dorsi downward + forward. Expose Ext. oblique + split fibres then cut across them in line of incision + retract. Cut internal obliques Incise the capsule over renal fat. Save – peritoneum.

Split the fat + handle as little as possible. Manually shell out kidney. Take care not to strip off kidney capsule.

Deliver kidney. Incise pelvis posteriorly + scoop out stone ⊂ gall bladder scoop. Sew up pelvis + replace fat ⊂ stitch. By denuding kidney of capsule a little it is apt to fix itself in position by adhesions. Leave Saline (hot) in fossa. If more space is needed the costo vertebral fascia may be removed. Cut. Cut muscle closed in layers ⊂ interrupted chromic sutures. Skin cat gut to fat and silk to skin.



Nephrectomy – Steps similar to above except that kidney pedicle is clamped ⊂ right angled clamps In difficulty use big kidney clamps



x Anaesthetist sits here on foot stool under sheets.

4 wet towels pinned around face and ~~neck~~ space min. Tube of connel introduced into wool cone + cone closed at bottom. After pt. sleeps the tube is introduced into the nose.

Blood pressure bag and stethescope disc bound to Rt. arm. with long tubes to anaesthetist.

Cerebellar Operation.

Preparation. - Back of head shaved. By orderly.

Cushing - bichloride towel over hair. Alcohol sponges to field. Incision out lined by knife Bichloride sponges. One layer of 9 wet gauze over field. Sheet pinned to head so it falls over the wire above + covers anaesthetist. Bichloride towels to shoulder. L. shaped table over shoulder & gray sheet over that and all of head except field. Gauze cut along lines of incision already out lined.

Incision deepened. ~~To~~ Snaps put on deep layers of scalp & turned out to cause hemostasis. Snaps held in rows by a sponge ~~to~~ folded Above indicated incision deepened to skull + periosteum & scraped back by periost ~~Elevator~~

Instruments.

Swabs (straight ?) ——— Snaps & silver clips ———

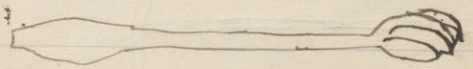
Small cotton swabs pressed out in saline. Bone wax ———

Periosteal elevator, joker or spud. Rongeurs ———

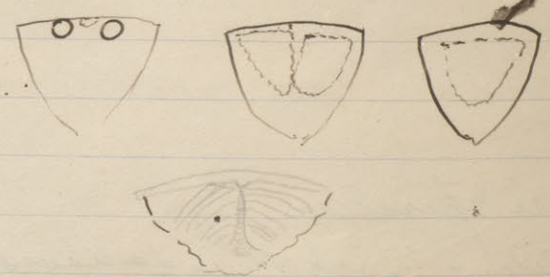
Needle ? ———

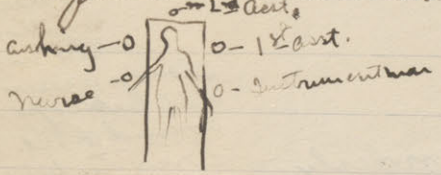
Perp. cut must be just in midline continuing down to Atlas as it has to be removed at times.

Bone Bleeding stopped & bone wax put on & finger & joker

Bone exposed down to canal. With electric motor and round bit ?  ~~two~~ one hole made on either side of acc. post tuber ance. Enlarged by hand brace & bit, beginning in holes bone bitten out by Rongeurs of various shapes

Large ~~bone~~ fixed bone clamps used also.





~~Exposure not large enough~~. new hole higher on the Left. Ventricle tapped via ———? by needle which is left in place. Dura lifted by tiny hook. Small hole & scalpel. Groove director inserted & cut made on it. Dura reflected Spoon spatula under dura & further cut made & scissors Bleeders in dura stopped & silver clips. L. lat. cerebellar lobe lifted & spatula for inspection. Small cut in L. cerebellar lobe and a blunt trochar introduced into cerebellum. Small amt. of fluid from probable cyst. Too deep for removal.

Ganglion. Cushing (Neuro High BS.)

3

Robert Rosenbloom. Surg. No. 10,036
13 yrs.

At 7-8 - severe frontal headaches.

18 months ago. blurring R. eye. followed by blindness here
1 yr. ago blurring of L. eye + Decompression in N.Y.
Lat. strabismus of R. eye as long as he can remember.

Pos. findings.

Subj. - complete loss vision in R. eye. Impairment of vision L.
L. hemianopsia.
Fundus O.D. optic atrophy - sl. edema discs?
R. Lat. strabismus of R. eye.
Hearing sl. better on L. side.
Slightly under size. No dystrophica adiposa genitalis.

Op. Transfrontal approach to Pituitary.
Horse shoe incision above L. to R. orbit.
Surrounding the chiasm + rachea more to
right + was a large tumor color of mother of
pearl & shelling out like wet saw-dust.
A cholesteoma, the second Cushing has seen.
When scooped out ē pituitary spoon one could
see chiasm and circle of Willis! Good
ether recovery.
Dr. Cushing had refused once to operate at a previous
admission.

side. high table
l aff. ether.
Gauze had been
e at top. of incision
reflexion - elec. + hand
+ down to bone
+ 3cm. in diameter
ngeal is sought
ped ē bone wax
much use of ~~cotton~~
+ wax. Rest
et ē sutures were
ing post ganglion
are exposed.
+ over this
)
~~ivotia~~ forceps
) + R.
be excised.
moved.
lessen the flow
+ lessen the
ed as hemo-
before closure
muscle edges
s ~~passed~~
edges
cavity filled ē
ed

Brain / Spatula

Robert Rosenbloom. Surg. No. 10,036
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When scooped out & pituitary spoon one could see chiasm and circle of Willis! Good ether recovery.
Dr. Cushing had refused once to operate at a previous admission.

5

Wm Dolan 35. Surg. No. 11,123

Hypophyseal

3 years ago blow on head - followed by severe headaches in attacks.

External strabismus of L. eye 8 yrs ago. + L. hemianopsia of L. eye - disappeared ~~&~~ glasses.

3 yrs. ago blow on head + development of epileptic seizures preceded by faintness also hot flushes + headaches. No secondary sex characteristics till the past 3 yrs. during which time he has had pituitary extract. Pubic hair + hair on upper lip now. emission 1 month ago.

~~tog~~

Findings.

Subjective. Headaches, epileptic attacks; hot flushes

objective - Hypotrichosis - skin soft. Skeletal undergrowth, adeposity, aplasia genitalia

Perimeter normal. Metabolism -20. B.P. low.

~~Not Sarcoma~~

Op. Sept 19. Transsphenoid Op. Base of sella removed. Tumor did not extrude into opening + he feared bleeding + leakage too much to enter substance Therefore closed, to remove the tumor from above another day.

Lev. 13 Colors 37: Serp. No. 11, 1, 2, 3

Coll. R. Glioma tosus cyst Temporal Lobe.

Cates - Cs July 31.

29. 9 years ago lack of ambition 4 yrs. ago headaches
L. ~~parietal~~ occipital. 2 months headache + vomiting
occasional but ~~f~~ continual nausea. Unstable emot-
ionally ~~dis~~ orientation. - Pt. brought from Portland Oregon
not cooperative on arrival. + stuporous.
Pos. findings.
Subjective. Headache - occipital, Vomiting, unsteady gait
Objective. Emotional instability. Dis orientation
Bilateral chops dis c 4 5 D. Statis + intention tremor L.
Cutaneous sensibility generally diminished.
Some suboccipital tenderness. + flexion of head on chest
gives pain. Exaggeration of tendon reflexes L. side,
Pos. Romberg.

Note from L.N.D. reported a L. homonymous hemianopsia
X Ray - indicated pressure in frontal region
Dr. Cushing planned to do a R. ~~bone~~ occipital lobe tumor flap
but ~~flap~~ but after shaving
head the veins on L. side of scalp were more dilated
+ after demarcating incision on R. he ~~transfered~~
to had an "inspiration" decided to doubt the
above L. hemianopsia + did a R. subtemporal decom-
pression.
1st Op. Sub temp. Decomp.
Widened convolutions. Needle in second temp convol.
to 6 cm. neg. in 3d convol. 5 cm + got ounce of straw
colored fluid 60 cc in all. Carral syringe + ~~of~~ asp. needle
cyst filled ~ 10% formalin for 5 min. Wd closed in layers.
Fluid Sp. Gr. 1.010, Alb. ++. Sugar 0. Sed. 0.
After op. - uncinate gyrus attacks + visual hallucinations
reviewing to op. described. - Onset. Pt. deaf came not apparent
2d op. 3d R. nerve palsy.
3rd op. - Explor. ~~but~~ to see if cyst had been ~~re~~ traveled. It was
not. Hence closure.

Cal. R. Phinneas capt Sharpenstick

Co - Cs pub 31.

ons cap bed of curlitin wyo cap tea cabe
ate occipital. 3 mastic bed cab + vomiting
ical hurt & carbuncl nausea. Use bed sweet-
dia vinaceous. -Pa. Drought from Portland Oregon
netic or cervical + stuporous.
dinap.
tic. Head cab -occipital, vomiting, watchy pait
ic. Emotional instability. Also overstation
medicaps also c + D. Sharp + nitration Reward Lg.
ous sensibility generally diminished.
cerebrospinal tenderness. + flex in g had in chest
tion. Exaggeration of tendon reflexes & ank.
ducing.

L.M.S. reported a st. Soccer nausea Kennedy Opdia
- mild central paralysis in frontal region left
Frontal left sac
lining planned to ob a Magnified but after observ
nia on L. midday Orally non more dilated
observation in room on R. L. Temporal
ular "inspiration" decided to Hospital
st. Kennedy opia + dicta R. Subtemporal decom
ne.
sub temp. Record.
dural convolutions. Needle in second temp cerebral
. Sup. in 3d Cerebral 3 Cm + pat Course of atten
d Cloud 6 Occ in sub Cerebral syringe + of sup. needle
d 6 10 cc formalin for 5 min. Use observ in Supra
Op. Op. 1.010, Alb. ++. Sugar 0. Sed 0.
- mucoid opaque attacks. Mucus Inflammation
to op. not united. - Overt. Pupils deaf cause not apparent
R. mucus plug.
Opera. Pat Cerebral apoplectic Sharp + nitration Reward. Ag area
Mucus abscess.

Case. ? serous arachnoiditis

Joseph Parasboschi June 2 1919 c 2

2. 4 yrs. ago. Pain in back of neck. 1/2 yr. ago occipital headache. 2 months vomiting 4 yrs. ago squint corrected by glasses. 1/2 yr. R. internal strabismus. Loss of vision. 2 yrs. slow talking. 3 recent convulsions.

Objective findings - Drowsy - lethargic. Retarded speech. Pupils R. equal. Sl. on L. Choked disc. pupils dilated. Romberg falls to L. Mod. Exophthalmus. facial paresis. L. hand falls when horizontally held. KJ diminished. Romberg pos. to L. + back. Cracked pot. resonance to head. Dil. veins of head. Head on L. side + hyperextended. Pass pointing to L. & both hands.

June 21 (1) Op. R. Subtemp. Decompression. Puncture of Lat. ventricles In view of complete absence of incoordination or of nystagmus felt not justified in exploring over cerebellum. Nothing found. much fluid withdrawn.

July 3. (2) Op. Sub occipital Exploration for Presumed Cerebellar tumor. No lesion exposed. Enormous cistern resembled what he had seen in hydrocephalus due to serous arachnoiditis.

July 10. July 24. Attempted trans ventricular Drainage of Dilated Ventricles. - Bone flap replaced & success as drainage haemorrhage was too great.

Marked improvement.

Case. Cerebellar cyst. - typical

Philip Paus. Surg No. 10,883.

29. 6 months headaches nause - occipital

Pain left side of head. On admission frontal.

Head retracted. Hands pressed on forehead.

Subjective findings

Dizziness, tinnitus typical

Headaches, mostly frontal

Weakness L. side

Diplopia, Vomiting.

Objective

Bilateral choked disc. 2 - 3 d.

Suboccipital tenderness

Cervical rigidity

Flexion of head on chest - great pain frontal

Marked L. ataxia

L. adiadococinesia

L. Hemuscular hypotonicity.

Past pointing to L.

Tinnitus - L. ear.

Bradycardia

Pos. Romberg + reeling gait.

Nystagmus coarser to L.

Operation July 29. 1919

Suboccipital Exploration - Cyst of L. hemisphere

Nothing extra cerebellar found to explain the tinnitus

By needle only a few drops of straw colored fluid

obtained. No further evidence.

Dear

Case. Cerebellar cyst. - Typical

Philip Paris. Surg No. 10,883.

9. 6 months headaches + nause - occipital

Pain left side of head. Quadranopsion frontal.

Head retracted. Hands pressed on forehead.

Subjective findings	Objective
Dizziness, Tinnitus (typical)	Bilateral choked disc. 2 - 3 d.
Headaches, mostly frontal	Suboccipital tenderness
Deafness L. side	Cervical rigidity
Diplopia, Vomiting.	Flexion of head on chest - great pain frontal
	Marked L. ataxia
	L. adiadococinesis
	L. Hemimuscular hypotonicity.
	Past pointing to L.
	Tinnitus - L. ear.
	Brady cardia
	Pos Romberg + reeling gait.
	Nystagmus coarser to L.

Operation July 29. 1919

Sub occipital Exploration - Cyst of L. hemisphere

Nothing extra cerebellar found to explain the symptoms

By needle only a few drops of straw colored fluid obtained. No further evidence.

Cases.

Gladys Mulry. 21 yrs. Cerebellar Cyst

years Frontal headache + vomiting attacks. 10 months failure of vision

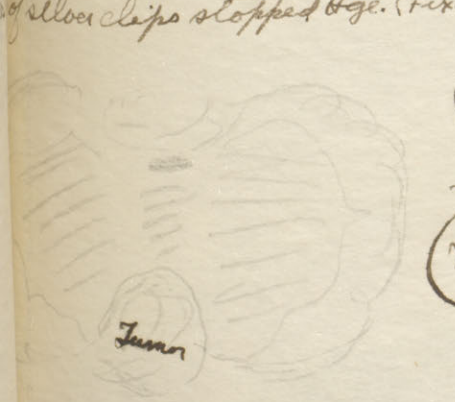
and decompression. Vision not improved. Headache relieved some
Decompression not bulging.

Subjective	Objective	
Headache	R. subtemp. decompress.	Optic atrophy
Weakness	Bilateral exophthalmos	Erythematous eruptions
Dizziness	No power convergence	Veins of eyelids dilated
Blind L. eye	Down + outward squint L. eye	Romberg +
Hallucinations of L.	~~Nasal Hemianopsia~~	
	Sl. L. facial paresis	Staggering gait - to R?
	Choked discs 2-3 D	Past pointing L. hand
	R. hemianopsia of R. eye & ear	Adiadococenesis L.

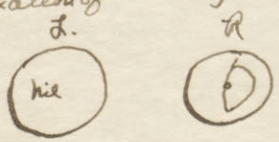
Second test of eye grounds showed above observation incorrect ie that the vertical meridian in the R. field did not exist but there was a little vision to left of meridian ie usual type of declining field from pressure. ^ nasal hemianopsia The first observation would have certainly made the lesion supratentorial. The visual hallucinations might also suggest occipital lesion.

Cerebellar operation (staggering gait, increased pressure, past pointing on left.)

Suboccipital region small. Bleeding profuse from bone + muscle. Once a puncture of ventricle was done here. Bone thick instead of thin as usual. The puncture showed large dilated ventricle upholding suboccipital lesion. Large cyst ∈ yellowish fluid found in mid line over 4th ventricle. A cap of cyst removed and a circle of silver clips stopped bge. (Fixation of brain ∈ Zenkers fluid?)



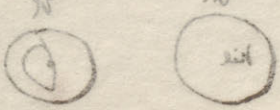
L. R



misleading field

correct field

Case



Case

Eliz. D'Arego - 41 - Cerebellar cyst.

10 months ago influenza. - headaches at first frontal, now suboccipital. Tired, sleepy, keeps her eyes closed. Some change in temperament. 5-6 weeks vomiting. 4-5 months hiccoughs

Subjective
Headaches (suboccipital at times + quite transient)
Vomiting, hiccoughing
Inability to stand or walk

Objective.
Romberg Pos. - Falls to R.
asynergia, reeling gait to R.
Muscle powers diminished
Transient + spontaneous nystag mas to R.
O.D. bilateral choked disc.
Neck flexion painful.
Heel shin a little incoordinate L.

Operation

Bilateral incision. Because of protrusion a ventricular puncture was made.
Large cyst in L. hemisphere 30 cc fluid. Walls fixed in formalin. Cystic fluid Sp. Gr. 1.004
Alb. ++
Sugar 0
Sediment - gelatinously.
Eyegrounds normal.

Case

Cerebellar Cyst.

Case. Acoustic Neuroma. own case
Roupenian - 7.

P.2. ~~Sept~~. 4 yrs. tinnitus L. ear 3 yrs headache + occ. vomiting
2½ yrs. impairment of vision. Hallucinations of sight + color. + Head held to Lft.

Subjective
Headache
Blindness
Inability to walk
Noises in L. ear.

Objective
Bilat. choke Disc 2D.
Pupils dilated. Nystag mus? more marked on looking to R.
Loss of L. corneal reflex, + facial overaction on L.
Rinne' Neg. in L. ear. Weber lateralized to R.
Ataxia L. arm + leg.
Adiadicokinesia L.
Past pointing L. hand?
Suboccipital tenderness L. ~~hemisphere~~. ?
Romberg Neg.

Operation. Sub capsular Enucleation of Large Left Acoustic Neuroma surmounted by Large Dilated Lateral Cistern.
Bilateral suboccipital bone flap. In Left. a tumor size of pigeons egg was enucleated from lower pt. of post. fossa. Tumor size of pigeons egg.
Satisfactory convalescence.

Case. Geometric Nervures. Nervures

Perspective - 3.

type. Insertion 3 type headache + sec. vomiting

type. surface wing of vision. Nervousness depth +

... + head had to type.

...

Headache

Dizziness

Headache to work

Nerves in a con.

...

Ended chair Dec 27

...ph's deleted typed questionnaire marked on looking

... 7.

...ph 4. nervousness, general nervousness or I.

... Dep in Con. Under Telephoned to P.

...ation Nervousness:

...t pointing & head?

...ceptible Tiredness & Headache?

...ches? Dep.

...tion. Subcorporeal Sensation of tongs

...t Nervous Nervous Nervousness by

...

...ge Bleeding Central Centre.

...ral Subscripted Nervous. To left a

...

...t of Post Hobbe. Nerves over of Pepsin off.

...

...Retrol Nervousness.

Case, Ciccola. Surg. No 11,536
Crown.

Convulsion 1½ yrs previously. Headaches same time
R parietal + occipital regions. 8 months ago sudden total
blindness & occasional remissions. Vomiting frequent
& unsteadiness. Smooth loss of sense of smell
Bilateral choke disc, dullness. July 1st - R. subtemporal
decompression. Neg. findings.
Relief of headaches + improvement of anosmia
2 weeks later returns & findings below.

Subjective - Diff. in walking
Blindness
Pain in L. side body + weakness here.

Objective. 2nd ar optic atrophy
Anosmia ?
L. facial paresis
L. adiadiconcinesia + astereognosis.
Hypesthesia to R light touch, pain + temp &
complete loss of L. sided muscle sense.
Stimulat. of L. side body is disagreeable.
K.J. + Achilles exaggerated on L. & ankle
clonus + neg. Babinski.
Nystagmus to R. conjugate deviation to L.

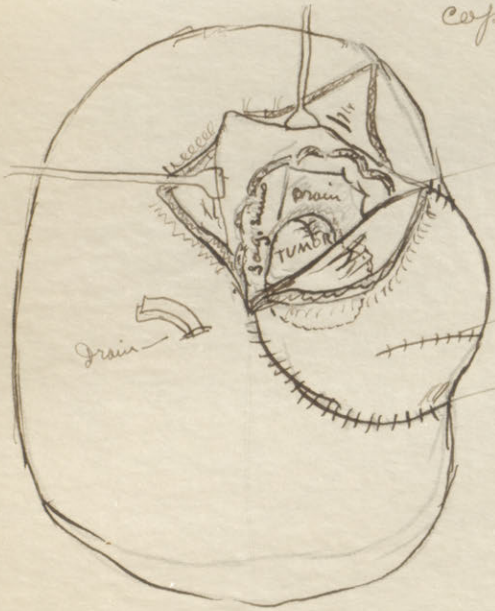
Op. Aug. 28. - 2nd Stage. Osteoplastic flap.
Disclosure of soft + vascular, reddish tumor
of upper R. frontal convolution.
Protrusion of dura here disclosed tumor. Pulse high
stopped.

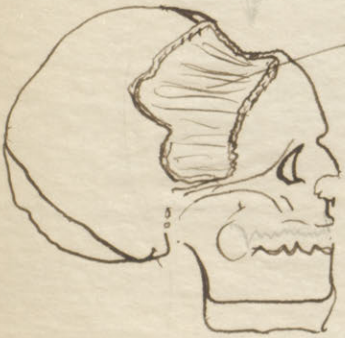
Op. Sept 1. Bone defect enlarged across long. sinus
+ forward. Tumor extruding fast + blood under scalp.
Dura incised along the side of the sinus. Tumor enucleated
& bare fingers covered & Dichloramine T. Single drain & 9 sutures

Case, Records. Seen Jan 11, 1938

Ciccola continued

Copied from Dr. Cushing





Operation continued.

Base of tumor pedicle broken off and vessels pressed to either side & fingers.

Good reaction to operation + attempted transfusion. Convalescence splendid.

Instruments.

Swabs (straight.

Small cotton swabs

Periosteal elevator, j

Needle ?

Perp. cut must b

to Atlas as it

Bone Bleeding stop

Bone exposed down

and round bit

on either side of

hand brace + bit, b

Rongeurs of various

Large ~~bone~~ fixed bone a

~~Exposure not large enou~~

tapped via

Dura lifted by

director inserted + d

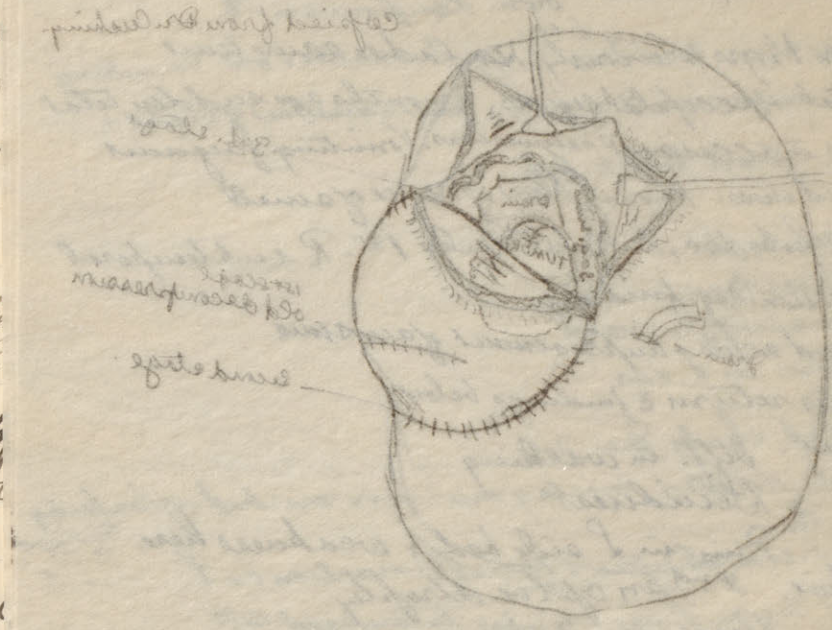
Spoon spatula under

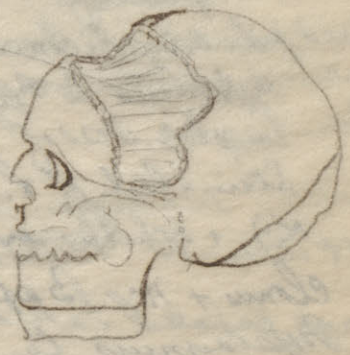
Bleeder in dura stopper

lifted & spatula for in

and a blunt hook

Small amt. of fluid





Ganglion. Cushing (Neuralgia High B.P.)

Outline of incision — Top of ear to outer angle of brow — over face + angles

- Patient ~~on~~ head on side. high table
- Dentist. Connell asp. ether.

Incision defined. Temporal artery ~~cut~~ caught. Gauze had been spread over outline of incision. Avoid nerve at top. of incision from brow. Retractor holds temporal muscle down. Free skin — circ. + bone and enlarged with rongeurs. Opening in bone about 3cm. in diameter + down to base. Spatula to hold down brain. The Mid. meningeal is caught ē cotton sponges. Bleeding from base of skull stopped ē bone wax. Hemisphere ~~cut~~ reflected up + held ē spatula. much use of ~~cotton~~ sponges. Dura is wiped back a bit a little + wax rest on base of skull. Ganglion exposed dura cut ē a sharp hook knife. Then dura reflected by wiping from ganglion until the 1st + 2nd div. + gang are exposed. The mid. meningeal art. erodes up + over the lateral side of gang. ie over 1st branch (?)

The root of gang. is evulsed ē a pair of sinuous forceps finished + by a small flat hook. ———) + IV.

Sometimes the sensory root alone may be evulsed. Root cut off in addition to evulsion + removed.

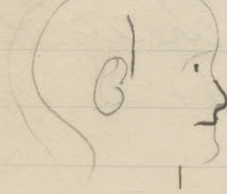
Head also raised for a time in order to lessen the flow of cerebro spinal fluid from nerve exits + lessen the blood flow. Small piece of muscle used as hemostatic over dural bleeding. Head dropped before closure to fill ē cerebro sp. fluid + catch bleeders.

Rubber tissue placed on muscle edges to stop bleeding. Silks passed through muscle edges + ends held. Cavity filled ē saline + silks tied

Layer of silk at inner + outer layer of muscle
put in ē small French needle. Not tied tightly.
Line + interrupted silk in very edge of fascia. Cat gut would
rip this fascia (Cushing) The silk must be waxed.
fascia & deep layer of the scalp close simultaneously
from one end to take drag off fascia. Vessels are not
tied but only snapped + little caught in silk ties
Skin closed ē ~~silk~~ silk on straight + needles.

Decompression. (Cushing)

Incision outlined by knife & scratch. Beginning just
~~above the~~ top of at 2 cm below top of ear + back of temp.
artery. - About 10 cm in length. Many
branches of temporal art. Hemostasis by
putting snaps on the aponeurosis ~~at~~ at 1 cm.
intervals + allow weight of snaps to occlude.



Incision through fascia over temp. muscle through muscle
and periosteum with periosteal elevators. Hole ē bit
~~Dr~~ + electric power and enlargement ē rongeurs
up to about 6 cm in diameter. The fascia + muscle is
reflected + lifted by decompression retractors
Incision in dura parallel to above incision
made by very cautious cuts ē scalpel while
holding up the dura ē forceps. Groove director inserted
& cut made on this. All bleeding pts in dura stopped
ē silver clips. Three corned flaps cut.
Hemisphere bulged out.

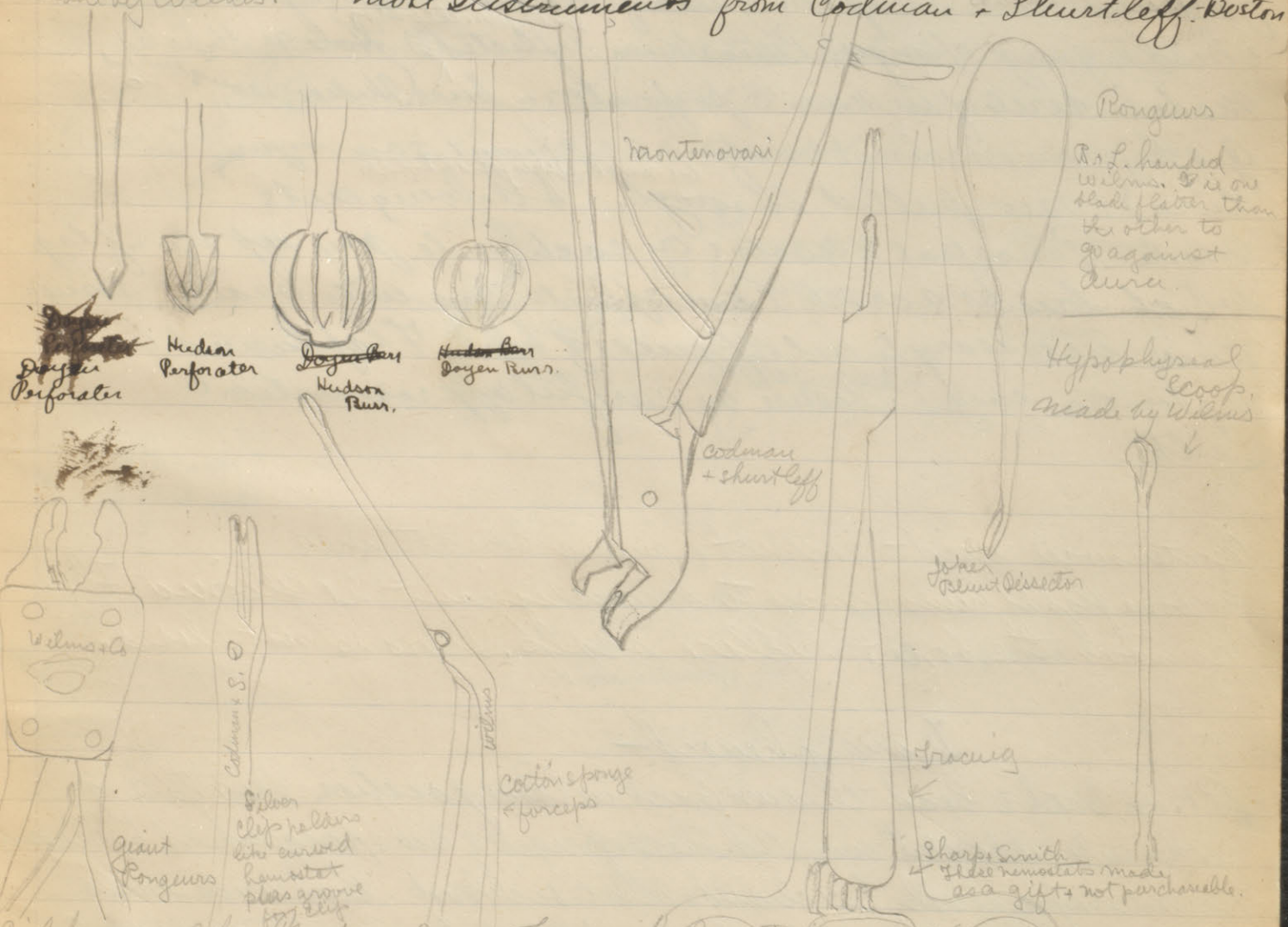
Closure (1) Interrupted silk on small French needle to
inner layer of temporal all tied at once. (2) Same outer layer. (3) same

~~but~~ in the fascia over muscle (only 3-4 sutures here. (Periosteum?) (4) Aponeurosis - same. May finish many layers at one end to ~~coax~~ coax it together first. (5) Skin straight needle silks. - Silver foil + ~~tarry~~ gauze. vaseline under ear + back of it + cotton under rim of ear then roller bandage to head as a cap.

Silver clip apparatus made by Wilms.

Many instruments from Wilms Surg. Inst. Co. Berlin

Most Instruments from Codman + Shurtleff - Boston



Silk - scalp - No 1, 2 to 3 Tracé Catgut needle. Waxed silk
Boil silk 5 min: Boil knives 30", Instruments 5-10, Gloves 5'.
Rubber tissue scrub in soap + water, Soak in bichloride 1-500. 24 hrs.
Nurse scrubs up + puts in sterile gauze + leaves in 1-5000 Bichloride.
Quinby uses Silk. No C. at times. -
Pantostat for motor for driving burrs and also cautery made by Ohio Electric - Schaerer Co. - N.Y.

Bone Flap.

Preparation – Shave day of op. – Alcohol + Bichloride. Dry
thickness bichloride gauze over whole head & hole torn for face
Incision previously outlined. Bichloride towel about crown
and thick rubber tourniquet. Gauze cut & scissors over
incision. Gray sheet & hole tied to head & straps.
Incision through scalp, fingers of two assistants on edges wound
for hemostasis. Snaps on galea q. 1 or 2 cm. Scalp reflected out
+ held & gauze sponges. Periosteum reflected). ~~Holes~~ 4 or 5 holes
made in circle of incision & perforator + burr (Hudson) + rongeured.
Giggley saw carriers (sometimes 2 to prevent saw injuring
dura) + saw pulled through. Shelving cuts
made. Periosteal elevators on each side pry up the flap
which breaks across. Care splintering into brain. Some-
times necessary to cut off pieces of bone. Flap turned back.
Exploration easy. Closure by careful approximation &
silk.

Watertowall used to connect or enlarge holes at times
In one flap if tumor proves to be malignant is gloma then
remove the bone & replace skin flap. Drain is not used.

Trans Sphenoid –

Pt. on back & head thrown back in Rose position. Mouth gag +
ether tube apparatus[1] inserted. Throat sponged & sea sponges held by second
nurse at special table. Face cleaned a little & bichloride. Bichloride towels
to face till mouth + nose only showed. Adrenalin sponges in nares early.
Upper lip + teeth cleaned. Upper lip retracted. Frenum incised in line of
lip attachment. End of septum removed. Mucous membrane elevated
from septum by various small periosteal elevators. Septum removed
& Ballenger knife[2] and ~~long~~ duck bill rongeurs.[3] Mucous membrane
also Rt. angled chisel[4]

tracted ē deep retractors (5) and muc. m. cleared deeper down. Post of septum removed. Bivalve Speculum (6) inserted. Sponging from time to time ē adrenalin and with hydrogen peroxide. Sphenoid bone removed till base of sella is exposed. This is ~~done~~ bitten away with rongeurs and with the punch (7) Dura ~~is~~ long dural knife hook (8) – never saw tumor removed. He uses ~~a~~ seal spoon. To close. Dichloramine T sponge placed ~~in nares~~. while 3 cat gut ~~stitches~~ are placed in frenum incision sponge removed on string + stitches tied. Large gauze & rubber tissue drains covered ē vaseline inserted in either nares so ~~the~~ end just does not press on back of ~~the~~ te.

(1) mouth gag Wilms

Ether

(2) cutting edge on axis.

Ballenger Knife

Kny-Scheerer N.Y. (Sandperson-Sook co 729 Boylston - agents)

(3) Duck Bill Rongeurs. Kny-Scheerer Co.

(7) Punch Odman + Shurtleff

(8) Knife Hook.

5 ½
6 ~~½~~
6 ½
7 cm. Wilms

Wilms.
Dilators sizes # 15
17
19
21

Knife – Boil 1 min.
Scizjors etc " 3 min.
Instruments " 10 min.

Solutions used
Klotz-Jones Sol.
Zenker
Formalin 10 %.

Bone Flap.

Preparation – Shave day of op. – Alcohol + Bichloride. Dry
thickness bichloride gauze over whole head & hole torn for
Incision previously outlined. Bichloride towel
and thick rubber tourniquet. Gauze cut & s
incision. Gray sheet & hole tied to head & strip
Incision through scalp, fingers of two assistants on s
for hemostasis. Snaps on galea q. 1 to 2 cm. Snaps reflec
+ held & gauze sponges. Periosteum reflected). ~~Holes~~ 4 to 5
made in circle of incision & perforator + burr (Hudson) + round
Gigglay saw carriers (sometimes 2 to prevent saw injuring
dura) + saw pulled through. Shelving cuts
made. Periosteal elevators on each side pry up &
which breaks across. Cave splinter ing cuts bra
times necessary to cut off pieces of bone. Flap tu
Exploration easy. Closure by careful approximat
silk.

Transsphenoid –

Pt. on back & head thrown back in Rose position. Mouth gag +
other tube apparatus (1) inserted. Throat sponged & sea sponges held by as
nurse at special table. Face cleaned a little & bichloride. Bichloride towels
to face till mouth + nose only showed. Adrenalin sponges in nares early
upper lip + teeth cleaned. Upper lip retracted. Frenum incised in lower
lip attachment. End of septum removed. Mucous membrane elevated
from septum by various small periosteal elevators. Septum remov
& Ballinger knife (2) and ~~long~~ duck bill rongeurs. (3) Mucous membran
also Rt. angled chisel (4)

retracted & deep retractors[5] and muc. m. cleared deeper down. & bost of septum removed. Bivalve Speculum[6] inserted. Sponging from time to time & adrenalin and with hydrogen peroxide. Sphenoid keel and cells reamed till base of sella is exposed. This is bitten away & the above rongeurs and with the punch[7] Dura incised & long dural knife hook[8] – never saw tumor removed. He uses hypophyseal spoon. To close. Dichloramine T sponge placed in cavity while 3 cat gut stitches are placed in frenum incision & sponge removed on string & stitches tied. Large gauze filled rubber tissue drains covered & vaseline inserted in either nares so Tip just does not press on back of palate.

(4) chisel (Wilms)

(1) mouth gag Wilms — Ether

(2) cutting edge on axis. Ballinger Knife. Kny-Scheerer N.Y. (Sanborn-Sook co 729 Boylston-agents)

(3) Duck Bill Rongeurs. Kny-Scheerer Co.

(5) Retractor H. Windler

(6) Wilms 5½ 6 6½ 7 cm.

(7) Punch Ostman + Shurtleff

(8) Knife Hook.

Wilms. Dilators Sizes # 15 # 17 # 19 # 21

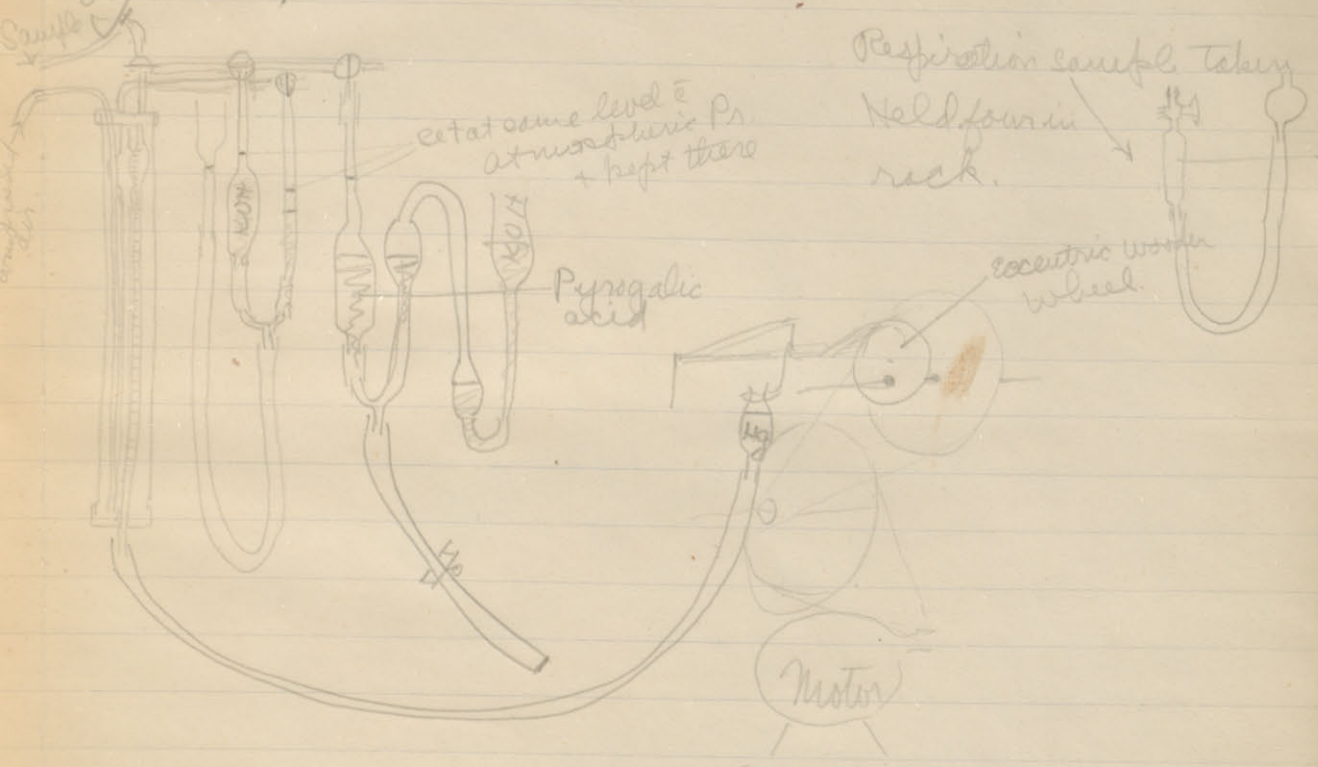
Knife – Boil 1 min.
Scizzors etc " 3 min.
Instruments " 10 min.

Solutions used
Klotz-Jones Sol.
Zenker
Formalin 10 %.

Transfrontal approach to Pituitary region.

Incision just above the brow. Perforator + Burr holes + bone flap made ⊂ saw. Bone flap reflected. Gyrus rectus topped if easily reached. Cerebral hemisphere reflected up. Roof of orbit R or L. hemisphere chiselled smooth but not perforated. Pituitary region reached and dura cut ⊂ dural hook. Dissection ⊂ sponges. Tumor removed ⊂ spoon. Hole filled ⊂ salt + usual closure in layers after replacing bone flap.

= Sat Sol KOH. – C.P. but not purified ē alcohol Sp.gr. 1.55
Use same sol. to make up Pyrogallic acid.
100cc. KOH. to 10 gms. Pyrogallic acid. Acid in bottle + add KOH
+ stopper to keep away from air. – Longer you keep it the better.
(see Haldane – Methods of Air analysis Oxford Press)
H.N. Elmer – Lieb. Gorman Co. 1136 Monadnock Bldg.
to buy Portable apparatus. Burette should be calibrated Chicago
by them.



Motor eccentric
wheels to raise lower Hg. for 15' to mix Pyro
acid + Oxygen.

Perimetry

Fine rod. — Discs. 1/4 (1/2 cm diam)

1/10 (.25 diam)

.6 m.

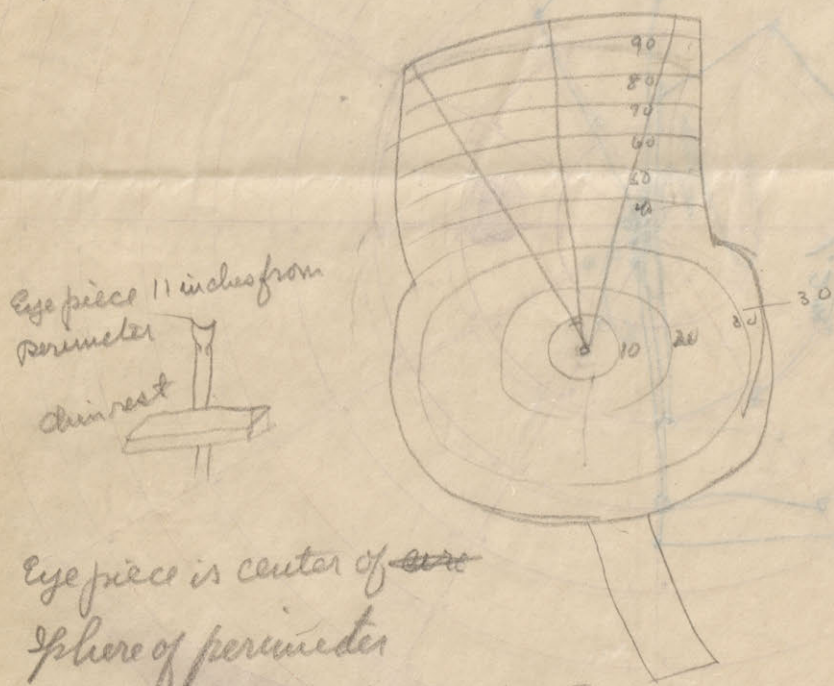
.015

.12

Also 4 1/2 cm Diam.

2 cm. Diam.

Perimeter Blackburn.



Eye piece is center of ~~arc~~ Sphere of perimeter

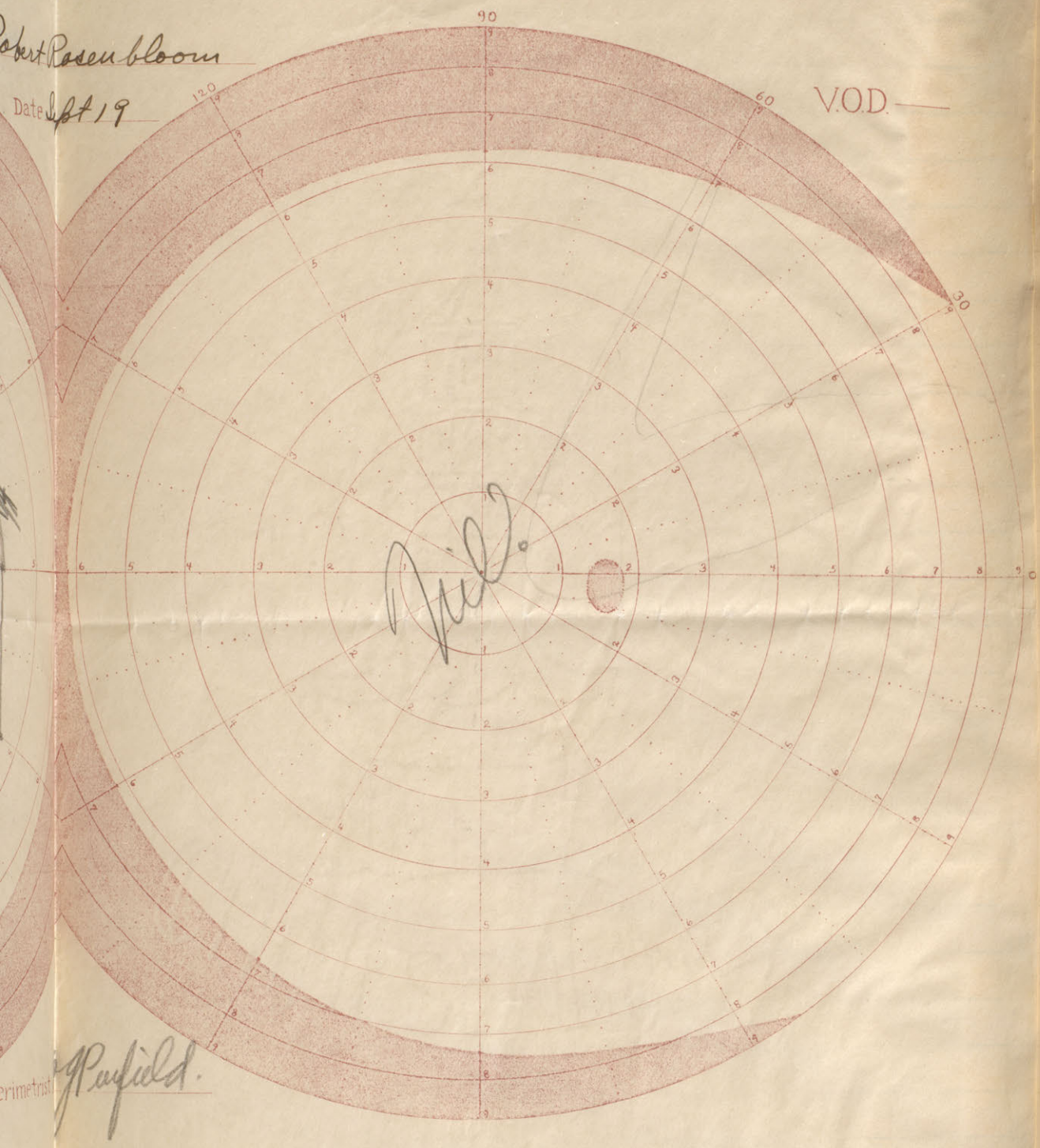
Perimeter turned stopping to a click every 30°

Horseshoe of light immediately behind chair of patient. Large black back ground behind perimeter.

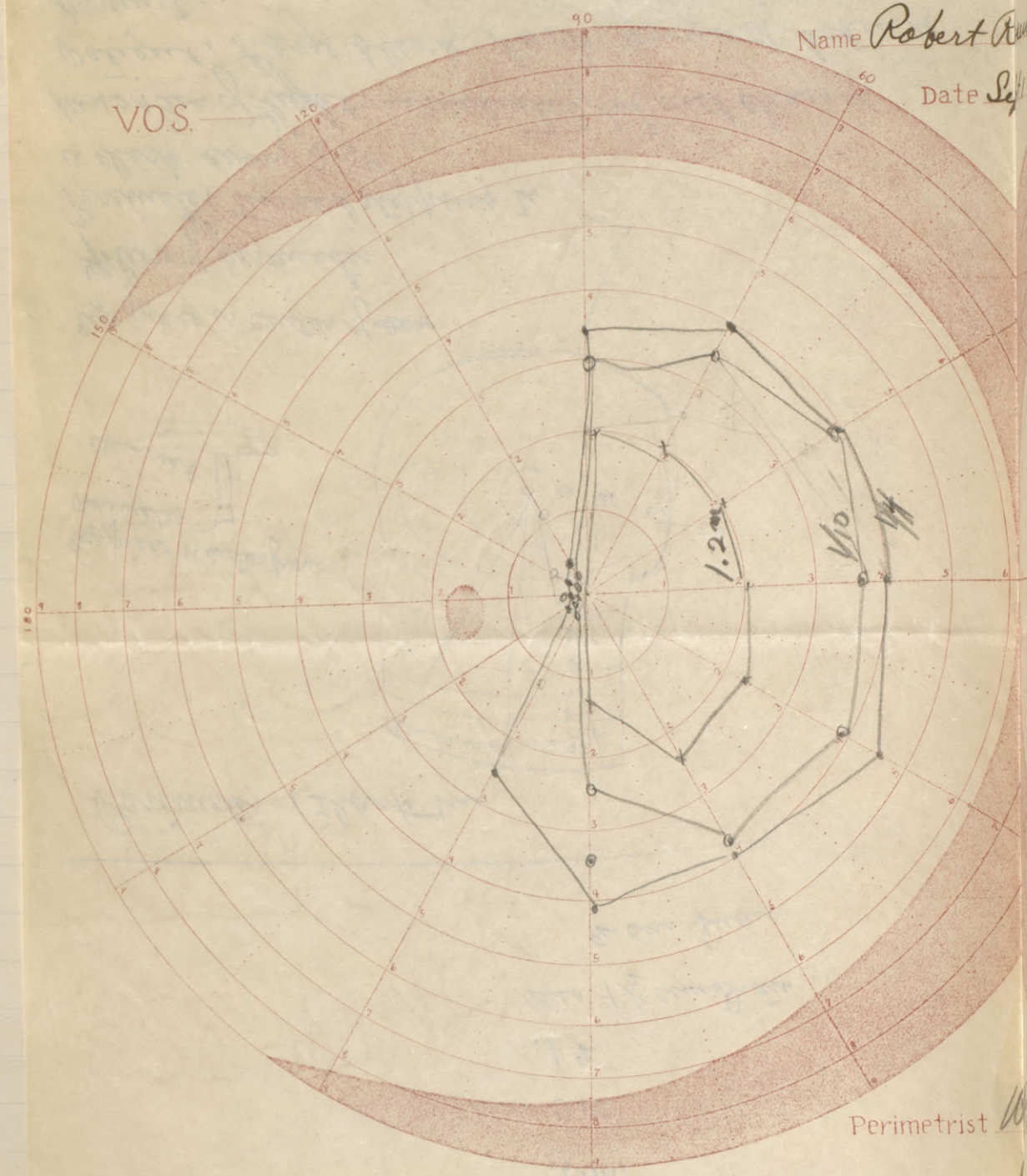
Robert Rosenbloom

Date Sept 19

V.O.D.



Perimetrist Penfield.


V.O.S.
Name Robert Rumbo
Date 5/19
90
60
120
150
180
1.2
1/10
1/4
Perimetrist