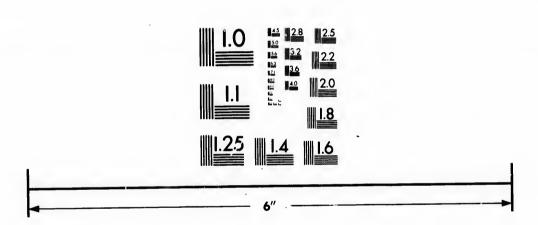


IMAGE EVALUATION TEST TARGET (MT-3)



Photographic Sciences Corporation

23 WEST MAIN STREET WEBSTER, N.Y. 14580 (716) 872-4503

STATE OF THE STATE

CIHM/ICMH Microfiche Series. CIHM/ICMH Collection de microfiches.



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques



(C) 1982

Technical and Bibliographic Notes/Notes techniques et bibliographiques

The Institute has attempted to obtain the be original copy available for filming. Features copy which may be bibliographically unique which may alter any of the images in the reproduction, or which may significantly the usual method of filming, are checked be	of this qu'il , de co poin ange une	lui a été pos et exemplaire t de vue bibli image reprod ification dan indiqués ci-	sible de se e qui sont p ographique luite, ou qu s la métho dessous.	procurer. Le peut-être unic e, qui peuver ui peuvent ex de normale d	s détails ques du it modific iger une	
Coloured covers/ Couverture de couleur		Coloured pa Pages de co				
Covers damaged/ Couverture endommagée		Pages dama Pages endo	aged/ ommagées			
Covers restored and/or laminated/ Couverture restaurée et/ou pelliculée		Pages resto	ored and/o ourées et/o	r laminated/ u pelliculées		
Cover title missing/ Le titre de couverture manque		Pages disco Pages déco	oloured, sta olorées, tac	ained or foxe hetées ou pi	d/ quées	
Coloured maps/ Cartes géographiques en couleur		Pages deta Pages déta				
Coloured ink (i.e. other than blue or b	lack)/ ou noire)	Showthrou Transparer				
Coloured plates and/or illustrations/ Planches et/ou illustrations en couleu	ır	Quality of print varies/ Qualité inégale de l'impression				
Bound with other material/ Relié avec d'autres documents		Includes supplementary material/ Comprend du matériel supplémentaire				
Tight binding may cause shadows or along interior margin/ La reliure serrée peut causer de l'omb	L	Only edition	on available ion disponi	e/ ble		
Blank leaves added during restoration appear within the text. Whenever pohave been omitted from filming/ Il se peut que certaines pages blanch lors d'une restauration apparaissent mais, lorsque cela était possible, ces pas été filmées.	r. may ssible, these nes ajoutées dans le texte,	Pages wholly or partially obscured by errata slips, tissues, etc., have been refilmed to ensure the best possible image/ Les pages totalement ou partiellement obscurcies par un feuillet d'errata, une pelure etc., ont été filmées à nouveau de façon à obtenir la meilleure image possible.				
Additional comments:/ Commentaires supplémentaires:						
This item is filmed at the reduction ratio of Ce document est filmé au taux de réduction 100 100 100 100 100 100 100 100 100 10	on indique ci-dessous.		26X	30	ĸ	
10X 14X 18		X				
12Y 16X	20X	24X		28X	3	

aire détails ues du t modifier ger une e filmage

i/ uées

aire

nent une pelure, façon à

by errata

med to

The copy filmed here has been reproduced thanks to the generosity of:

Library of Congress
Photoduplication Service

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol → (meaning "CONTINUED"), or the symbol ▼ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:

L'exemplaire filmé fut reproduit grâce à la générosité de:

Library of Congress Photoduplication Service

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire (ilmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

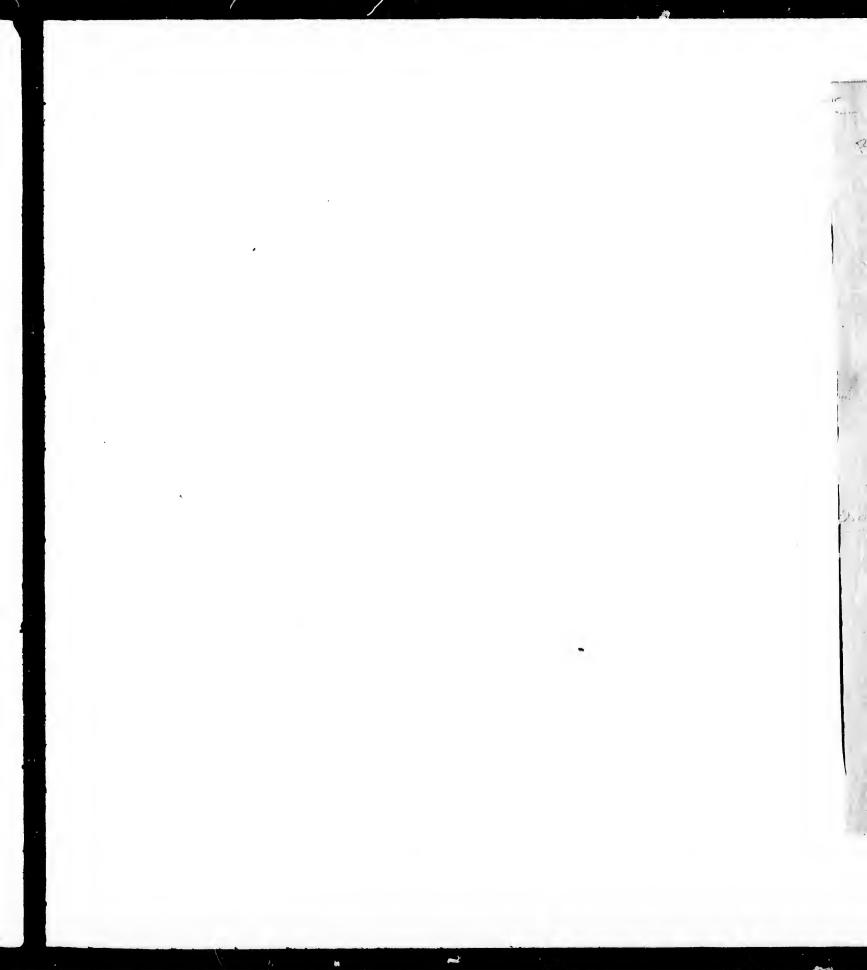
Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole → signifie "A SUIVRE", le symbole ▼ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

1	2	3



1	2	3
4	5	6



431961

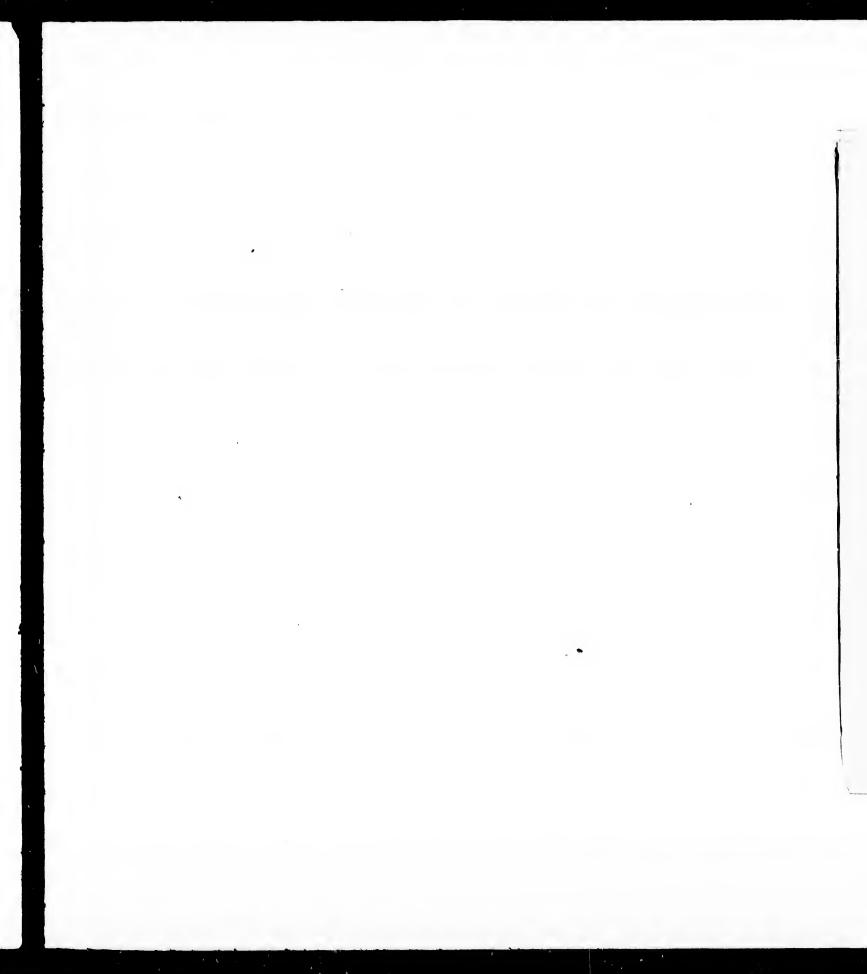
PAPERS BY THE STAFF

OF THE

MEDICAL FACULTY,

McGILL UNIVERSITY.

118997



[Reprinted from The PHILADELPHIA MEDICAL JOURNAL, October 14, 1899.]

A CASE OF CONGENITAL DEFICIENCY OF BOTH CLAVICLES.

By W. F. HAMILTON, M.D.,

of Montreal, Can.

Lecturer in Clinical Medicine, McGill University, Assistant Physician to the Royal Victoria Hospital.

THE subject of this anomaly was admitted to the Royal Victoria Hospital complaining of pains in the back and legs, of weakness and of inability to sleep.

She was a fairly well developed woman, 38 years of age and unmarried. Her shoulders were sloping and her gait was marked by slight swaying from side to side with lordosis. She had worn a plaster jacket for the last three years, as she felt her back needed more support than her muscles afforded.

It was found on inquiry that she had "always been troubled with a weak back." As a babe she was not strong. Her first teeth came at 2 years of age and thereafter. They were not lost until after her fifteenth year, and the second teeth were very poorly developed, few of them appearing above the gums. She began to walk at 3 years of age.

She is one of a family of 8 children, all of whom are living and well with the exception of one brother who died of pulmonary tuberculosis. She has had measles, scarlet-fever and whooping-cough. Her height is 5 feet, and she weighed on admission about 120 pounds. The frontal eminences are prominent and separated by a wide and shallow furrow, running back over the crown. The upper teeth are artificial, the palate is high and arched. The joints generally are lax. There is double

talipes planus, but no bone deformity nor deficiency is noticed anywhere except that presented by the clavicles. The scapulas are somewhat winged when the patient is erect.

On examination of the clavicles one finds only the sternal end of each bone with about one-third the shaft. Each ends abruptly about 2½ inches from the sterno-clavicular articulation and the remainder of the dis-



F16. 1.

tance to the acromion process is spanned by a fibrous cord, more readily felt on the left than on the right side. There does not appear to be any abnormality in the muscles about the clavicle, although one cannot be certain on this point without dissection. As all events, all the ordinary movements of arms and shoulders are well performed, and the patient has experienced no disability on account of this abnormality.

deficiency is by the clavied when the

nds only the ird the shaft. In the sternor of the dis-



d by a fibrous n on the right abnormality in one cannot be A all events, I snoulders are experienced no Such a condition is very rare indeed, and a careful search over medical literature is not rewarded with finding many examples of the kind.

Gustave Schorstein reports a case similar in the greater number of characteristic points. George Carpenter



F16. 2.

gives a report of another patient undergoing treatment for impetigo contagiosa in whom deficiency of the clavicles was discovered. The patient whose case is described by Dr. Carpenter was one of six belonging to the same family in whom clavicular deformities, among

other anomalies, are described. The father's clavicles were divided near the center; one brother, aged 14 years, had a divided right clavicle; a sister, aged 12, and a brother, aged 7, presented a similar condition. In another brother, aged 19, a peculiar kink was observed in the position where, in the other cases, the fragments were divided.

In reviewing the literature as suggested by these two recent writers in the *Lancet*, we find that 20 cases showing clavicular deficiency in some part have been reported. This case now reported makes 21. The sternal end of the bone seems to be generally present while the acromion or outer portion of the shaft is represented by a fibrous band.

Todd, of St. Louis, as quoted by Carpenter, discovered in the dissecting room "a subject without clavicles. Rudiments of the clavicles were attached to the acromion process and to the sternum—the intermediate portions being wanting."

An attempt was made to take a skiagraph of our case, but it showed so poorly in this way that no effort has been made to reproduce it for this report.

I am indebted to Dr. H. B. Cushing, house physician, for references to the literature on this case, and to Dr. Patrick for the photographs.

287 Mountain Street, Montreal, Canada. ther's clavicles other, aged 14 ister, aged 12, ilar condition. kink was obther cases, the

1 by these two 20 cases showhave been re-. The sternal present while is represented

ter, discovered nout clavicles. ed to the acroermediate por-

agraph of our that no effort eport.

ouse physician, ase, and to Dr.

