the attending ſymptoms. In middle-aged perſons, and un­der favourable circumstances, a fracture of the thigh bone, or of the bones oſ the leg, may be cured in two months ; of the arm bone, or bones of the fore arm, in six weeks ; of the ribs, clavicles, and bones of the hand, in three weeks. In infancy the cure will take a ſhorter, and in old age a longer, time than this.

3. In ſimple fractures the inflammatory ſymptoms gene­rally ſubſide in a few days. When they become worſe, which is ſometimes the case, aſtringent applications ſhould be employed. If theſe fail, blood ought to be drawn from the parts affected. This is of ſo much advantage, that it ought never to be omitted where the ſurrounding ſoft parts are much injured. Friction with emollient oils, warm ba­thing, the uſe of Bath and other ſimilar waters, are alſo of much ſervice. The limb ſometimes puts on a clumſy ap­pearance from an overgrowth of callus. When this tenden­cy appears, ardent ſpirits and other aſtringents are conſidered as uſeful ; ſometimes pressure on the part by a thin plate of lead fixed by a bandage may be advantageous. Many inſtances occur, however, where no remedies prove ſucceſsful: The patient ought therefore to be acquainted be­forehand with the probable event, to prevent unpleaſant re­flections afterwards.

Sometimes the ends of the bone remain looſe long after they might have been reunited. This may be owing to ſome conſtitutional diſeaſe, to the bones not being kept ſteadily in contact, to ſome of the ſoft parts getting in be­tween them, or to the bone being broken in different pla­ces, and the intermediate fractures being too ſmall to ad­here. Pregnancy has alſo been mentioned as a cauſe. By removing theſe obſtructions, a perfect union may in recent caſes be accompliſhed. But where the caſe is of long ſtanding, callus of the bones becomes ſo hard and ſmooth as to move with the eaſe of a joint, ſo that no advantage can be derived from laying them together. In that case, an inci­ſion ſhould be made through the ſoft parts, and a ſmall por­tion of the ends of the bone removed with a ſaw. If this be properly performed, nature will ſupply the deficiency. When ſmall pieces of bone remain long looſe, they ſhould be extracted by making an opening. The intervention of muſcles or other ſoft parts is known by the very ſevere pain and tenſion, and by particular motions of the limb cauſing great pain and twitching of the muſcles which move it. The limb ſhould be put into all the variety of ſituation; and if this does not ſucceed, an opening must be made, and the ſoft parts removed. Sometimes in fractures blood-vessels are ruptured by the ſharp spiculæ of the bone : this happens moſt commonly in compound fractures. When the effuſion of blood is great, the part ſwells ſo much that it is neceſſary to lay it open, and to ſecure the divided vessels by a li­gature. When the ſwelling is not great, the abſorption of the blood is truſted to nature. When the blood remains long in contact with the fractured bone, it ſometimes prevents the formation of callus ; the perioſteum ſeparates from a conſiderable portion of the bone, and a thin fetid ſanies is diſcharged at the wound. When this happens, no cure can be expected till the parts of the bone deprived of perioſteum have exfoliated, or have been ſeparated by a ſaw.

Sect. II. *Fractures of the Bones of the Face.*

Fractures of the noſe may impede reſpiration, affect the ſpeech and ſenſe of ſmelling, give rise to polypi and te­dious ulcers, and may beſides be dangerous from their vi­cinity to the brain. When any part of the bones of the noſe has been raiſed above the reſt, it is to be preſſed into its place with the fingers ; if it has been puſhed into the noſtril, it is to be raiſed with the end oſ a ſpatula or other ſi­milar inſtrument. If any portion be almoſt entirely separated from the reſt, it ſhould be removed ; but if it adheres with conſiderable firmneſs, it is to be replaced. If the bones, after being replaced, do not remain in their proper ſituation, they are to be retained either by tubes introduced into the noſtrils, or by a double-headed roller, with pro­per compreſſes as the caſe may require. Inflammation ſhould be prevented by the proper remedies.

Much care is necessary in replacing the fractured bones of the face, and in dreſſing them, in order to prevent defor­mity. The dreſſings may be retained by adheſive plaſters. Inflammation, by which the eyes, noſe, or antrum maxillare is apt to be injured, ſhould be prevented. When matter collects in the antrum, it is to be removed by the metthods formerly deſcribed.

For replacing fractures of the lower jaw, the patient ſhould be ſeated in a proper light, with his head firmly ſe­cured. The ſurgeon ſhould preſs with one hand on the in­side of the bone, while with the other he guards againſt in­equalities on the outſide. If a tooth come in the way, it ſhould be extracted ; when any of the others are forced out of their ſockets, they ſhould be replaced, and tied to the neighbouring teeth till they become firm. The fractured parts being kept firm by an aſſiſtant, a thick compreſſs of linen or cotton ſhould be laid over the chin, and made to extend from ear to ear over it ; a four-headed roller ſhould. be applied firm enough to keep the fractured parts in con­tact. The patient ſhould be kept quiet during the cure, and fed upon ſpoon-meat. The dreſſings ſhould be remo­ved as ſeldom as poſſible. When the fracture is accompa­nied with an external wound, the parts ſhould be ſupported by an aſſiſtant during the dreſſing of it.

Sect. III. *Fractures of the Clavicles, Ribs, Sternum, and Spine.*

A fracture of the clavicle is eaſily diſcovered by the grating noiſe in the fractured bone upon moving the arm freely, by the ends of the bone yielding to pressure, and by the motion of the humerus being impeded. All that can be done is to raiſe the arm, and ſupport it at a pιroper height, either by a sling, or, which is better, by the leather caſe recommended in caſe of luxation of this bone. By this the fractured parts will be brought together, ſo far at leaſt as to prevent deformity, and render the bone sufficiently ſtrong.

Fractures of the ribs are diſcovered by pressures with the fingers. The ſymptoms are commonly moderate, and the patient ſoon gets well. In ſome caſes, however, the pain is ſevere, the breathing becomes difficult, attended with cough, and perhaps with ſpitting of blood, and the pulſe is quick, full, and ſometimes oppreſſed. Theſe ſymptoms ariſe from the ribs being beat in on the lungs.

In the treatment, it is proper in every caſe to discharge ſome blood. If one end of the rib rise, it ought to be repreſſed by moderate pressure ; and to prevent its rising again, a broad leather belt ſhould be applied pretty tight, and con­tinued for ſome weeks. When a portion of the rib is for­ced inwards, an opening ſhould be made over it with a ſcalpel, and then it ſhould be elevated with the fingers or a for­ceps. When diſtreſſing ſymptoms proceed from air or blood collected in the cavity of the cheſt, theſe fluids ought to be diſcharged by an operation.

The ſymptoms of a fractured ſternum are nearly the ſame with those of the ribs. It requires great attention frorm the vicinity of the heart and large blood-vessels. The patient ought to loſe a quantity of blood, and be kept on an anti- phlogiſtic regimen. If the pain, cough, and oppressed breathing, do not yield to theſe remedies, an inciſion ſhould be