

pupils, with loss of accommodation. If the patient survives the toxic influence, these symptoms disappear after a short time.

True spasm of accommodation, as distinguished from the condition of accommodative tension already noticed in connection with ametropia, is of comparatively rare occurrence, and is a result of irritation of the ciliary nerves or the oculomotor nerve centres. It is associated with contraction of the pupil, and is the exact opposite of accommodative paralysis with mydriasis. Certain drugs (*myotics*), instilled into the conjunctival sac, have the property of evoking accommodative spasm with contraction of the pupil. A single drop of a solution of eserine sulphate (the active alkaloid of Calabar bean), of the strength of one-half of one per cent. (1:200), brings on contraction of the pupil and spasm of accommodation, which begin nearly simultaneously within about ten minutes, and reach a maximum in from thirty to forty minutes. After about two hours, the far point (*r*), which at the height of the action of the drug is not over 20 cm. (eight inches) from the eye, is found to have receded to its normal position (infinity in the emmetropic eye); but the near point, in voluntary accommodation, is considerably nearer than normal after the lapse of six hours, showing a temporary increase in the range of accommodation. The contraction of the pupil begins to diminish after about two hours, at first slowly, then more rapidly for about four hours more, and afterward slowly until, at the end of two days, the pupil has nearly or quite regained its normal diameter. With a weaker solution of eserine the spasm of accommodation is much less than with the half-per-cent. solution, and is painless; with the stronger solution the action is accompanied by a sensation of spasmodic jerking, with some pain. Pilocarpine, the active alkaloid of jaborandi, is much milder in its action than eserine, but is nevertheless an efficient myotic, and exerts also a very positive effect in stimulating the accommodation.

Contraction of the pupil is frequently observed in central nervous affections, and notably in tabes dorsalis. Myosis, with spasm of the accommodation, follows also the administration of large doses of eserine, opium, and some other drugs, internally. The internal or hypodermic use of pilocarpine does not produce contraction of the pupil or spasm of accommodation.

Irritation of the fifth cranial nerve (ophthalmic division) is followed by contraction of the pupil, and the same phenomenon may attend irritation of the terminal branches of this nerve in the cornea. Myosis from this cause may also be attended with spasm of accommodation.

John Green.

ACEPHALUS. See *Teratology.*

ACETABULUM, FRACTURES OF, may be divided into compound and subcutaneous, or, as regards their causation, into direct and indirect. The hip joint is so deeply situated and so efficiently protected by the surrounding bony projections and soft tissues against direct violence that fractures produced in this manner almost invariably belong to the compound variety, and in the great majority of cases they are the result of gunshot injuries. Gunshot wounds of the hip joint, with or without fracture of the acetabulum, have always been considered by surgeons as formidable and dangerous lesions. Pirogoff made the statement that during the Crimean War all injuries of this kind proved fatal. During the War of the Rebellion nearly all cases of gunshot injuries of the hip-joint treated on the conservative plan resulted in death. Of 63 cases of similar injury in which resection was performed, only 5 recovered. In his classical treatise on this subject, B. von Langenbeck collected 119 cases which occurred during the Franco-Prussian War, with 29 recoveries; 88 were treated on the expectant plan, with 25 recoveries; 31 were submitted to excision, with 4 recoveries.

The acetabulum may be fractured without injury of the head or neck of the femur, as the bullet may impinge

upon the floor of the acetabulum, from within the pelvis, with sufficient force to break the bone, producing a fissure or stellate fracture of its base, or it may, in its course, carry away the rim of the cotyloid cavity. An exceedingly interesting case, illustrating the latter assertion, is reported by Dr. J. F. Miner, of Buffalo (*Buffalo Med. and Surg. Journal*, vol. v., p. 383). Lieut.-Col. James Strong, of the Thirty-eighth New York Volunteers, was wounded, May 5, 1862, at the battle of Williamsburg, Va. The ball entered a little below the anterior superior spinous process of the ilium, and made its exit near the outer margin of the sacrum. The ball passed deeply, and fractured, in its course, the rim of the acetabulum, which was removed, an inch and a half in length, and of a diameter sufficient to show that the whole upper rim had been carried away. This fragment of bone was removed from the wound at the dressing made in the hospital to which he was carried, after having lain on the field for some hours. The wound was very large, and a thorough examination could be made by the easy passage of the finger. The patient passed through a serious and prolonged illness from the suppuration and hectic fever which followed, but finally recovered, with five inches shortening of the limb, inward rotation of the foot, and bony ankylosis between the dislocated thigh bone and the ilium. The points of entrance and exit of the projectile furnish valuable information in regard to the probable injury of the acetabulum in gunshot fractures of the hip joint. In the case here reported, the ball entered just below the anterior superior spinous process of the ilium, and passed out near the margin of the sacrum, leaving intact the head of the femur, but opening the hip joint by carrying away the superior and posterior margin of the rim, thus permitting the subsequent dorsal dislocation of the head of the femur by muscular force. B. von Langenbeck states that, in case the ball enters directly below and toward the outer side of the spine of the pubes, and takes its exit in the region behind the greater trochanter of the same side, as a rule it penetrates the hip joint; and, at the same time, it fractures in its course the upper rim of the acetabulum. Escape of synovial fluid, swelling in the region of the hip joint from extravasation of blood or the products of inflammation, preternatural motion in the joint, crepitation, and dislocation of the head of the femur spontaneously or on manipulation, are other important diagnostic symptoms. The most important information regarding the exact nature of the injury is, however, obtained by enlarging the track of the bullet and rendering the hip-joint accessible to touch and sight. This procedure, done under antiseptic precautions, not only affords an opportunity to ascertain the true nature and gravity of the injury, but it is imperatively called for as the first and most important step in the treatment. All foreign bodies and detached pieces of bone should be removed, all hemorrhage carefully arrested, and the whole injured surface and surrounding parts thoroughly disinfected; effective drainage should be established, and every possible source of infection guarded against by dressing the wound antiseptically. All these measures are essential, as the success of the operation and the life of the patient depend on procuring and maintaining an aseptic condition of the wound. The leading principle in the treatment should be, from the very beginning, to convert the compound into a simple fracture, and thus protect the patient against the disastrous consequences of traumatic infection, exhausting suppuration, pyemia, and septicæmia.

Subcutaneous or simple fractures are again divided into those which involve the floor and those which involve the rim of the acetabulum. This division rests on clinical experience as well as on the results of experimental research. Fractures of the base or floor of the acetabulum, notwithstanding their rare occurrence, yet present a great diversity in the direction and extent of the line of fracture. Courant observed a fracture which traversed the ilio-pectineal tubercle, the entire acetabulum, and the ischium. Earle and Travers describe two cases in which two lines of fracture passed through the

acetabulum; Neill and Sansom saw cases with three lines of fracture which extended beyond the rim. In Dr. Neill's specimen the lines of fracture followed those of the embryonal division of the bone; the union which followed was complete, and there was very little callus on the articular surface, a circumstance undoubtedly due to the slight displacement of the fragments. More serious to the life of the patient and the future utility of the limb are those cases in which a multiple fracture at the base exists with such wide separation between the fragments as to allow the head of the femur to be driven into the pelvis by the fracturing force, thereby producing an intrapelvic dislocation of the thigh. A number of such cases have been reported. Astley Cooper alludes to three cases. In two of these the thigh was rotated inward, in the third case the leg and thigh were supinated. Mr. Moore's case demonstrates the possibility and manner of repair in these cases (*Medico-Chir. Transactions*, vol. xxxiv., p. 107). A man suffered a severe injury of the hip, which was diagnosed and treated for fracture of the femoral neck. The thigh was not inverted or everted, only slightly flexed and adducted. The man recovered, and several years afterward died from other causes, when an autopsy revealed that the injury had been a fracture of the os pubis, ilium, and acetabulum, which allowed the head of the femur to pass through into the pelvis, the trochanter resting against the acetabulum. Similar cases have been reported by Kendrick and Morel-Lavellée. In all cases of fracture at the base of the acetabulum, without displacement of the head of the femur, the diagnosis usually remains doubtful. Main reliance must be placed on the manner in which the injury was inflicted, the intensity of the force applied, and the location of the pain. Accurate measurement will always furnish important negative evidence. In case of intrapelvic dislocation of the head of the femur through the fractured base of the acetabulum, the shortening of the limb and the approximation of the trochanter major toward the pelvis will be proportionate to the degree of penetration of the head and neck into the pelvis; rotation of the limb will not be practicable; flexion and extension will be found to be either impaired or rendered impossible; and at the same time the head of the femur may be felt within the pelvis on making a digital examination through the rectum. In the adoption of therapeutic measures it is necessary to ascertain the degree of impairment of the functional capacity of the acetabulum. If the head of the femur is retained firmly in its normal position the fracture will unite promptly and firmly without any special retentive measures. Rest in bed with the thigh slightly flexed and resting upon pillows will be sufficient to fulfil the local indications. If the pelvic ring is more extensively fractured, a plaster-of-Paris splint including the pelvis, both thighs, and the entire leg on the affected side, or Verity's suspension splint, will prove most efficient in securing immobility of the fragments, and will afford the greatest amount of comfort to the patient. When the base of the acetabulum has been perforated by the head of the femur it is of paramount importance to replace the dislocated bone and retain it *in situ* by a plaster-of-Paris dressing, or by applying extension by weight and pulley, as advised by Hueter, until the opening is closed by callus or connective tissue which will definitely prevent redislocation.

FRACTURE OF THE RIM OF THE ACETABULUM.—A number of well-authenticated cases of this accident have been reported, so that no further doubt can exist that some portions of the rim can be fractured without further injury to the acetabulum. Some years ago the writer collected from various sources twenty-seven cases of this kind of fracture, all of them supported by an accurate clinical history, some having been cases verified by a post-mortem examination. Dr. H. O. Walker, of Detroit, has in his possession a typical specimen of this kind, an illustration of which is here inserted (*Detroit Lancet*, July, 1879). In the text-books on surgery this subject is usually referred to under the head of complicated dislocations of the head of the femur. As this fracture usually in-

volves the upper and posterior portion of the rim, the resistance to the head of the femur in that direction is lost, and as a result—either with the concurrent aid of some extraneous force, or even without such aid, simply by the force of muscular contraction—a dorsal dislocation of the thigh takes place, with adduction, flexion, and rotation of the thigh inward. The difficulty experienced in retaining the head of the femur in the acetabulum under these circumstances, as well as the obscurity of the diagnosis, imparts to this subject an unusual amount of interest. The older works on surgery mention direct and great violence as the only cause of fracture of the acetabulum; indeed, until more recently, it had been considered impossible for a fracture of the rim to take place without more extensive injury to the ilium. When the fracturing force is applied over the centre of the trochanter major, in the direction of the neck of the femur, the head of the bone is driven directly against the socket, and a stellate or perforating fracture of the base of the acetabulum is the result, according to the amount of violence applied; but if the force is applied in such a manner that it first rotates the femur outward or inward, then one margin of the acetabulum acts as a fulcrum to the neck, and the head is forced against the opposite side, and a linear fracture through the acetabulum, or a fracture of the rim, takes place. In such cases, the traction of the capsular ligament assists the head of the femur in producing the fracture of the rim, but independently of other causes such traction is insufficient to produce the injury. When the force is applied to the posterior part of the pelvis, the pelvis becomes the movable point, and the foot, if the leg is extended, or more frequently the knee, becomes the fixed point, and furnishes the necessary amount of resistance. These assertions have been verified by the writer by numerous experiments on the cadaver. At the moment the injury is received, it is essential for the thigh to be *abducted*, as adduction would favor a dislocation by the head of the femur gliding over the inclined plane of the internal surface of the acetabulum. The pelvis may be the fixed point, and the force may be transmitted through the femur by a blow or fall upon the knee. In most instances in which this accident occurred, the thigh was more or less flexed at the time of injury; hence, in the majority of cases, the upper and posterior segment of the rim was fractured, and the head of the femur dislocated into the upper sciatic notch or upon the dorsum ilii. Of the twenty-seven cases of fracture of the rim of the acetabulum, the extremes of the ages were eighteen and seventy-eight years, so that most of these cases occurred during the time of life when the individual is most exposed to grave injuries. It is also well to remember that, in young persons, dislocation and diastasis occur in preference to fracture, while in the aged, the altered position of the neck of the femur, as well as the increased fragility of its tissue, is a potent predisposing cause of fracture of the femoral neck.

The symptoms presented by a case of fracture of the rim of the acetabulum are those of dislocation and fracture combined; the symptoms of the former resemble ordinary dislocation, while those of the latter are directly referable to the broken bone itself. A certain degree of displacement of the head of the femur was present in all cases in which a diagnosis was made during life. Benjamin Travers believed that in some cases of fracture of the rim of the acetabulum the displacement takes place gradually some time after the injury has been received, but it is more probable that these were cases such as have been described by Hueter as inflammatory dilatation of the

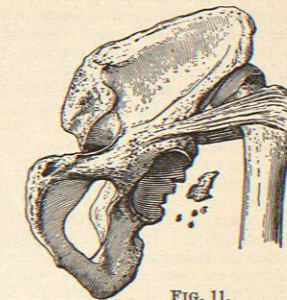


FIG. 11.

acetabulum, the interstitial absorption of the margins of the cavity permitting the head of the femur to glide upward and backward. In 24 cases the direction of the dislocation is mentioned, and in 15 of these the head of the femur was dislocated upward and backward, in 4 into the great sciatic notch, in 2 directly backward, in 2 downward, and in 1 case forward. It will be seen, then, that in a large majority of cases that portion of the rim is fractured which is in the direction of the usual form of dislocation, so that the same injury which produces a dislocation may also cause a fracture, provided the force applied be sufficiently great, and the limb happen to be abducted at the time the injury is sustained.

The amount of shortening corresponds to the distance the head of the femur recedes from the socket. In Agnew's case no shortening could be detected on careful measurement. In all of the other cases in which mention is made of this symptom, it was present, but varied in degree from a quarter of an inch to four inches. If the head of the femur has left the socket the position of the limb is the same as in simple dislocation, the direction being determined by the form of dislocation. Flexion to a greater or less extent was present in all cases in which reference is made to this subject. Inversion of the foot and rotation of the femur inward were present in fourteen cases, while the opposite condition existed in three cases, and in ten cases no mention is made of this symptom. When the dislocation was complete, the limb remained immovable in its abnormal position until reduction was effected. The characteristic symptoms of the injury are those which are referable to the fracture itself, and these are crepitus, easy reduction, and difficult retention. Crepitus is always an important symptom in ascertaining the existence of a fracture. If it is distinctly felt, there can be no further doubt that a bone has been broken. The presence of this symptom is of special diagnostic value in connection with this subject, as the symptoms of dislocation are usually so prominent as to engage the whole attention of the surgeon. In the cases reported, this symptom is alluded to eighteen times, and in the following terms: distinct, eleven times; faint, once; marked, twice; indistinct, once; slight, once; and in two cases it was absent. Bigelow lays great stress on this symptom as being essential to the diagnosis of fracture; his words are: "To afford satisfactory evidence, cases of this sort should have been identified by autopsy, or at least by crepitus." I believe that the crepitus is not the same as in ordinary fractures, for in these it is the result of two rough bony fragments rubbing against each other, while in the cases under consideration it is a roughness we obtain by rubbing an articular surface against a broken surface of bone; hence it is not quite as loud and distinct. The detached margin of the acetabulum, unless comminuted, remains attached to the capsular ligament, and is pushed in front of or to one side of the head of the femur at the time dislocation occurs, and is dragged after it when reduction takes place. In most of these cases it is clearly stated that crepitus was felt just before the head of the femur slipped into the socket, or at the moment relaxation took place, and in both instances it must have been produced by the head passing over the rough broken edge of the acetabulum. The case with which reduction has been effected has attracted the attention of almost every observer. This is due to a more extensive laceration of the capsular ligament than occurs in simple dislocation, and also to the removal of the obstacle offered by the intact margin of the acetabulum. By the fracture of the rim, a more direct and even route has been prepared for the head of the femur to return to its socket.

Relaxation has always constituted the most perplexing feature of these cases. Its occurrence has usually led to a more thorough examination and correct diagnosis. It is well known that in ordinary dislocations of the hip-joint, when the bone has once been reduced, it remains in its place regardless of the after-treatment, differing greatly in this respect from the same lesion of the shoulder joint on account of the greater depth of the socket and the action of more numerous and powerful muscles

for maintaining retention. Hueter believed that the cases of habitual dislocation of the hip joint reported by Karpinski may have been the result of injury to the rim of the acetabulum. Relaxation takes place from the inability of the defective margin to resist muscular contraction. The difficulty in retaining the bone is increased by the depth of the fracture and its approach to the junction of the superior and posterior portions of the rim. In this connection it is important to determine what portion of the rim is most frequently the seat of the fracture. In 20 of the cases special mention is made of this fact, as follows: superior portion of rim, 2; superior and posterior, 7; posterior, 5; posterior inferior, 4; inferior, 1; anterior, 1. When the inferior or anterior portion of the rim is fractured, there is no tendency to relaxation provided the limb is kept in the extended position and slightly inverted.

Diagnosis.—A most thorough and critical examination while the patient is profoundly under the influence of an anæsthetic is always necessary to establish a positive diagnosis. If spontaneous relaxation does not follow immediately after reduction has been accomplished, and there are sufficient symptoms present to warrant a suspicion of the presence of the injury, it would be advisable to test the functional integrity of the acetabulum by flexion, adduction, and rotation of the thigh; if any part of the rim has become defective by fracture, relaxation will be sure to take place. This manœuvre, associated with the presence of crepitus, may be regarded as the crucial test.

The differential diagnosis must consider fractures of the neck of the femur with displacement, and simple dislocation. To distinguish this fracture from fracture of the neck of the femur, it is necessary to compare their most prominent symptoms:

FRacture OF THE RIM OF THE ACETABULUM.	FRacture OF THE NECK OF THE FEMUR WITHOUT IMPACTION.
<i>Position of Limb.</i>	
Thigh and leg flexed, adducted, and rotated inward.	Thigh and leg straight and rotated outward.
<i>Mobility of Limb.</i>	
Mobility of limb diminished.	Mobility of limb increased.
<i>Arc of Rotation.</i>	
The trochanter major rotates in its normal arc.	The arc of rotation of the trochanter major is diminished.
<i>Crepitus.</i>	
Crepitation is not rough, and is felt as the head passes over the broken edge of the acetabulum.	Crepitation is rough, and is felt when the limb has been drawn down to its normal length.
<i>Head of the Femur.</i>	
The head of the femur is felt to be displaced.	The head of the femur is normal in its position.
<i>Retention.</i>	
The deformity reappears if by any movement of the limb the head of the femur is made to leave the socket.	The deformity reappears as soon as extension ceases.
<i>History.</i>	
Is most frequent in middle life and is the result of great violence.	If intracapsular in variety, it occurs in the aged and is the result of slight violence.

Crepitus and a tendency to relaxation are the symptoms on which we place the most reliance for differentiating this fracture from simple dislocation. Acupuncture, as advised by Middeldorpf, may be of great service to determine the existence of fracture of the rim. After reduction has been accomplished, a long stout needle, previously well disinfected, is passed through the tissues to the supposed seat of fracture. By lateral movements of its point the defect in the margin, as well as the roughness of its surface, is ascertained. An effort should now be made to fix the detached fragment with the point of the needle, and by rubbing it over the broken margin a rough crepitus is elicited.

Prognosis.—The prognosis must have reference to the preservation of life and the restoration of the utility of the limb. All of the old authors regarded fracture of the pelvic bones as a grave lesion, almost necessarily leading to a fatal termination. I believe that all uncomplicated fractures of these bones tend to recovery, and that death is attributable in most instances to a lesion of some important pelvic or abdominal viscera. In 23 cases in which the result is noted in this regard, 13 recovered and 10 died. The prognosis is less favorable if the floor of the acetabulum is also implicated in the fracture. Of 4 cases of this sort, only 1 recovered. In 9 cases out of the 13 that recovered, the limb remained in place after reduction, and the recovery was complete. In 4 cases redisslocation took place, the limb assuming the same malposition as after simple unreduced dorsal dislocation of the femur.

Treatment.—The indications to be fulfilled in the treatment of this class of injuries are: (1) to reduce the dislocation; (2) to retain the head of the femur in the socket until union has taken place between the fragments. The dislocation may be reduced by manipulation or by extension; in both instances flexion constitutes an important step in the operation. Bigelow says: "These displacements, especially the displacement backward, demand the usual attempts at reduction by flexion. Although the bone inclines to slip from the socket it can be retained there, in cases of a sort heretofore considered difficult of treatment, by angular extension, with an angular splint attached to the ceiling, or some other point above the patient; or if any manœuvre has reduced the bone, the limb should be retained, if possible, in the attitude which completed the manœuvre." In 17 of the cases reported, the manner of reduction is specified as follows: by extension, 11 (in most of these cases extension and flexion were combined); by manipulation, 2; by manipulation and extension, 1; by manipulation over Sutton's fulcrum, 1; by extension with pulley, 2. In all but one of the cases the displacement was corrected without difficulty. As in most instances a diagnosis cannot be made before reduction has been accomplished, surgeons will resort to their favorite methods of reduction. Should the nature of the lesion be determined beforehand, traction in the direction of the broken edge of the rim, and rotation of the limb inward, will readily restore the normal relation of the parts. As we possess no direct measures of keeping the fractured surfaces in apposition, all our efforts must be directed toward preventing relaxation by appropriate position and fixation of the limb and pelvis. The depth and extent of the fractured margin, as well as the location of the fracture, will determine the difficulty in retaining the head of the femur in its normal position. If sufficient depth of the upper portion of the rim is left to serve as support to the head of the bone, all that is necessary is to dress the thigh in the abducted position, so as to press the head of the femur against the floor of the acetabulum. As the contusions of the soft parts about the hip and pelvis are severe, a plaster-of-Paris splint cannot be applied as a primary dressing. The healthy limb and pelvis should always be included in the retentive dressing. Bonnet's wire breeches, Dzondi-Hagerdorn's apparatus, or Hamilton's splint, as advised by him in the treatment of fractures of the femur in children, will be found sufficient to maintain retention. After the swelling in the soft parts has subsided, nothing more perfect could be devised than a plaster-of-Paris dressing, including both limbs and the pelvis.

When nearly the entire depth of the upper or posterior portion of the rim has been detached, muscular contraction must be counteracted by permanent extension with the weight and pulley, and immobility of the joint should be secured by appropriate splints. In cases of this sort, angular extension with an angular splint, as advised by Bigelow, will answer an admirable purpose. The unbroken part of the rim should be made the support of the head whenever practicable. Thus, for example, when the posterior part of the rim is fractured the thigh should be dressed in the position of hyperextension; a broad,

firm, pelvic band, with a compress above the trochanter, being employed to aid in keeping the bone in place, in approximating the fractured surfaces, and in preventing muscular spasms.

The treatment should be continued for a sufficient length of time to secure a firm union of the detached fragment with the broken rim, which, as in other fractures, generally requires from four to six weeks. The patient must be directed to exercise great care in the use of the limb for a considerable length of time after all dressings have been removed, so as to obviate any undue pressure against the recently repaired rim of the acetabulum.

N. Senn.

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ACETAL.—Ethylene-di-ethyl-ether—di-ethyl-aldehyd, $\text{CH}_3\text{CH}(\text{OC}_2\text{H}_5)_2$. This is a preparation obtained by distilling a mixture of acetic aldehyd and alcohol in the presence of some dehydrating agent such as sulphuric acid. It is a colorless, limpid liquid, very volatile, and with a rather agreeable ethereal odor. On the tongue it is rather sharp, but leaves a pleasant nutty after-taste. It is soluble in eighteen parts of water and in twenty-five parts of chloroform; and it is miscible in all proportions with alcohol and ether. It boils at $104^\circ\text{--}106^\circ\text{C}$. ($219^\circ\text{--}222^\circ\text{F}$), and its specific gravity at 20°C . is 0.831. Its particular use is as an agreeable sedative, and it also has some power as a hypnotic and local anæsthetic. As a hypnotic, however, its effects are too transient to be of much value; and the more volatile ethers are preferable for the production of local anæsthesia. As a sedative in headache and nausea one to three drachms may be given in emulsion with orange flower or cinnamon water, and may be administered either by mouth or by rectum.

Acetal is also the trade name for a headache remedy which consists of various volatile oils and acetic ether dissolved in alcohol. W. A. Bastedo.

ACETAMINOL.—Para-acetamido-benzoyl-eugenol, $\text{C}_6\text{H}_5.\text{OCH}_2.\text{C}_2\text{H}_5.\text{O}.\text{CO}.\text{C}_6\text{H}_4.\text{NHCH}_2.\text{CO}$, prepared by the action of benzoic and aminoacetic acids on eugenol. It is in whitish scales or a crystalline powder, is practically insoluble in water, and is soluble in alcohol. It has the general antiseptic action of benzoyl eugenol combined with more or less power to reduce the temperature. It has been used as an intestinal antiseptic and in the treatment of pulmonary tuberculosis. Dose, 5 to 15 grains. W. A. Bastedo.

ACETANILID.— $\text{C}_6\text{H}_5.\text{NH}.\text{C}_2\text{H}_5.\text{O}$ (Phenylacetamide, Antifebrin). Of the host of new remedies that have been manufactured during the past few years, this is one that has received general approbation and has sustained the reputation with which it was introduced. Since its introduction in 1886, by Drs. Kahn and Hepp, it has been extensively employed, without detracting from their estimate of its virtues. Further study has established its antipyretic and analgesic properties, and were it not that in phenazone and phenacetine we have drugs with a similar action it would be prized as of inestimable value.

It now occupies a position in the new pharmacopœias of the United States and Great Britain—in the former as *acetanilid*, "an acetyl derivative of aniline"; in the latter as *acetanilide*, "a crystalline substance obtainable by the action of glacial acetic acid on aniline, and subsequent purification." It occurs as white, shining micaceous, crystalline laminae, or a crystalline powder, odorless, having a faintly burning taste. Soluble at 59°F . in 194 parts of water and in 5 parts of alcohol; in 18 parts of boiling water; also soluble in 18 parts of ether and easily soluble in chloroform. When heated to 235.4°F . it melts. Upon ignition it is consumed without leaving a