extreme injury, especially contusions, abrasions, and lacerations of the thighs.

Evidence of seminal emission was formerly required as a proof of guilt, but it has been abandoned. Such evidence, if present, however, is of great value as corroborative of the other facts. If stains are found upon the clothing a small piece should be cut out and submitted to careful microscopic examination. Spermatozoa may be found also in the vaginal mucus, on the skin, or on the pubic hair. (See article on *Seminal Stains.*)

Marks of violence on either person are of value chiefly in determining that consent was not given and that force was employed. They are of greater importance, therefore, in the case of a woman above the age of consent. In the case of the prosecuting witness it is necessary to exclude the possibility that the wounds were self-inflicted. This is to be suspected especially in the case of a neurotic or evidently erotic girl, and when the marks consist of parallel lines corresponding in size and position to possible positions of her own fingers.

The much-discussed question of the possibility of rape upon an able-bodied woman by a man unaided resolves itself into a question of the comparative strength and endurance of the two individuals, allowance being always made for the influence of fright and excitement upon the woman.

The presence of venereal disease in both persons is highly corroborative of the charge, providing the disease has appeared in one at a time corresponding to probable inoculation at the time of the alleged assault. Great care must be exercised, however, in the diagnostication of a muco-purulent discharge. Microscopic examination is generally necessary. It is especially important when the defendant is accused with having inoculated the victim with gonorrhœa. Such inoculation is possible after the discharge from the male urethra has become extremely scant and has even lost its purulent appearance. The discovery of gonococci in it is sufficient evidence of the inoculability of the disease and goes far toward establishing the guilt of the defendant.

James M. French.

RASPBERRY. See *Rosaceæ.*

RAVENDEN SPRINGS.—Randolph County, Arkansas. Post-Office.—Ravenden Springs. Hotel Southern, and numerous smaller hotels and inns.

Access.—Viâ Kansas City, Fort Scott & Memphis Railroad to Ravenden Station, thence five miles by coach or hack to springs.

This resort is located in the northern part of Arkansas near the White River Mountains, the range in which the Eureka Springs have their origin. The elevation is twelve hundred feet. The geological formation is the same as that at Eureka, but the mountains are not so high or so rugged. The surrounding scenery is, however, exceedingly fine, and many features of interest are pointed out to visitors. The place takes its name from the "Raven's Den," a small cave with a circular opening a few feet from the top of the highest mountain. In this cave it is said that many of the feathered denizens of the forest, particularly the raven, or black crow, made their homes and hatched their young for a long period of time. Fish and game are abundant, and it is stated that many deer are killed in the vicinity during the winter months. The following analysis of the water was made by Messrs. Wright & Merritt, analytical chemists of St. Louis, in 1885: One United States gallon contains (solids): Lithium carbonate, gr. 1.26; calcium carbonate, gr. 4.61; magnesium carbonate, gr. 4.48; calcium chloride, gr. 1.24; magnesium chloride, gr. 2.99; sodium chloride, gr. 2.19; alumina, gr. 2.36; silica, gr. 0.83; iodine, iron, and calcium sulphate, of each a trace; organic matter, gr. 1.86. Total, 21.82 grains. Gases: Carbonic acid, 21.5 cubic inches; atmospheric air, 13.3 cubic inches. Temperature of water, 59° F.

James K. Crook.

RAWLEY SPRINGS.—Rockingham County, Virginia. Post-Office.—Rawley Springs. Hotel.

Access.—Viâ Baltimore & Ohio Railroad to Harrisonburg, thence a two-hours drive over a macadamized turnpike to springs.

This is one of the famous old Virginia mountain resorts, and it unites many of the best features of a summer resting-place. The elevation is two thousand feet above the sea-level, and the climate peculiarly dry and equable. The surrounding scenery is wild and rugged, but at the same time picturesquely attractive. The hotel at the springs is a comfortable and handsomely furnished building containing seventy-seven rooms, with a dining-room capacity of one hundred and fifty guests. It is well supplied with modern comforts and conveniences and facilities for amusement. The springs here are three in number. The water of each fountain seems to possess the same general characteristics. It is without odor, and possesses a strongly marked chalybeate taste. It exhibits a faintly acid odor from the presence of carbonic-acid gas. This disappears as the paper saturated with it dries. The water is perfectly clear and transparent as it flows from the earth, but on exposure to the air it soon begins to deposit a rust-colored precipitate of the oxide of iron. The temperature of the main spring is about 51° F. According to the analysis made by Prof. J. W. Mallet, one United States gallon contains: Iron protoxide, gr. 1.09; organic matter, gr. 0.03; and very small amounts of manganese protoxide, alumina, magnesia, lime, lithia, soda, potash, ammonia, sulphuric acid, chlorine, and silicic acid. The qualities of the water are improved by the presence of carbonic acid. It is a very useful, lightly carbonated, chalybeate water, and has an extensive sale even at distant points.

James K. Crook.

RAWLINS SULPHUR SPRINGS.—Carbon County, Wyoming. Post-Office.—Rawlins. Hotels.

These springs are pleasantly located about two miles from the enterprising town of Rawlins. The situation is on an elevated plateau, at an altitude of sixty-four hundred feet above the sea-level. The surrounding country is rugged and mountainous. The following analysis was made in 1894 by E. E. Slosson, of the School of Mines of the University of Wyoming, at Laramie: One United States gallon contains (solids): Potassium chloride, gr. 1.40; sodium chloride, gr. 12.18; sodium sulphate, gr. 854; magnesium sulphate, gr. 18.23; calcium sulphate, gr. 19.28; calcium carbonate, gr. 7.41; silica, gr. 8.23; carbonic acid, gr. 0.82. Total, 76.09 grains. Temperature of water at spring, 48° F.

The water is said to be highly sulphureted as it flows. The above analysis having been made at a distance from the springs, this gas was lost by volatilization. Therapeutically, the water has been fully tested in only one disease, viz., rheumatism. In this affection it is stated to be very efficacious, both when taken internally and when used in the form of hot baths. The water, as shown by the analysis, should possess very good diuretic and laxative properties. A first-class hotel and bath-house are much needed to put the resort on a good footing. The natural advantages of the place appear to offer excellent inducements for the establishment of a sanatorium.

James K. Crook.

RAY FUNGUS. See *Actinomycosis.*

RAYNAUD'S DISEASE.—Laveran was the first to apply to this disease the name of its discoverer. To the literature of the condition Raynaud made three contributions: his thesis in 1862, his article on "Gangrene," 1872, and his "New Researches," 1874. His attention was first attracted to the subject by a case of spontaneous symmetrical gangrene which came under his observation in 1861. As the result of personal observation and a searching of medical literature he brought together twenty-five cases (Monro) upon which he based his thesis. After a study of the varied phenomena of these cases, he elaborated his theory of spasm of the arterioles and venules in the

affected parts, and suggested that, therapeutically, electricity might be of value. He believed symmetry of the lesions and absence of demonstrable changes in the vessels to be two essential features in the disease. He also thought that the larger arteries might be affected by the spasm to such an extent that the radial pulse might be temporarily lost.

In the "New Researches" he describes a contraction of the arteries of the fundus oculi observed in two cases. He also elucidates more fully the theory of abnormal irritability of the vaso-motor centres with consequent vascular spasm of a reflex nature.

It has long been known that under the influence of cold the fingers may undergo a change of color, becoming white and even blue. The former condition has been designated the "dead finger" (*digitus mortuus*); Raynaud called it "local syncope," and other names, such as "local anæmia" (Hardy), or "regional ischæmia" (Weiss) have been used to describe it. Raynaud applied the term "local asphyxia" to the affected part when it manifested a blue appearance; Weiss suggested the term "regional cyanosis" and Barlow that of "local cyanosis" as more appropriate than Raynaud's appellation. The same condition was called by Boiseau "uterine cyanosis" because of its relation to the suppression of the menses. Monro thinks that, one tymological grounds, Sir George Johnson's criticism of Raynaud's use of these terms was correct, viz., that "local syncope" should be called "local asphyxia" and "local asphyxia" should be termed "local apnœa," but that the attempt to put this into practice would cause much confusion. Symmetrical gangrene is the culmination, and one of the most distinctive features, of Raynaud's disease. Raynaud's clinical tripod, then, is local syncope, local asphyxia, and symmetrical gangrene. Writers have multiplied terms in their endeavor to describe the various phases of this syndrome, but the clarity of our conception of the subject will be greatly enhanced by utterly disregarding the same.

Symmetrical gangrene is a rare condition, but "Raynaud's phenomena" (Hutchinson), local syncope and local asphyxia or either, may occur for years, finally disappearing without any gangrenous manifestation. An illustration of this is Mrs. M., now under my observation. When nine years of age, were she to write, knit, sew, or do any work requiring the dexterous use of the fingers, the first phalanx of the fingers of the right hand would become white, cold, and numb, eventually assuming a purple of bluish aspect; she could not again use them until the attack had passed and feeling had returned. This condition continued until her fifteenth year when it ceased and did not again show itself until a few months ago.

Raynaud's disease usually develops before the thirtieth year. Children, even infants, may be subject to it, but I have known it to occur after the seventieth year as well. Females are more susceptible to it than males. According to Monro the ratio, as found in the medical wards of the Glasgow Royal Infirmary, has been about one in three thousand cases, but this proportion he regards as an underestimate,—*i.e.*, if the disease be considered purely as a neurosis, and not in its relation to other diseases of which it was an incident only. In my own experience "Raynaud's phenomena" constitute a not very infrequent condition.

Raynaud's disease may occur as a pure neurosis or it may be associated with a great variety of morbid conditions such as hysteria, insanity, epilepsy, tabes dorsalis, syringomyelia, myelitis, neurasthenia, spinal tumors, chorea, Graves' disease, lead poisoning, syphilis, phthisis, infectious fevers, Bright's disease, chlorosis, anæmia, diabetes insipidus, and a congenitally small aorta; it sometimes appears also in connection with certain dermatoneuroses, as urticaria, scleroderma, and erythromelalgia. Heredity is present in about eight per cent. of the cases (Monro). The most important causative agent is cold. Emotional influences, malaria, diseases of the female generative organs, and the breaking off of the morphine and chloral habits are all important etiological factors.

Local syncope comes first in the trinity of symptoms which characterize Raynaud's disease. It may exist alone or it may be associated with local asphyxia, a very frequent combination; or, as is more usual, all three symptoms—local syncope, local asphyxia, and gangrene—are present. Numbness and stiffness in the digit affected may usher in an attack, or there may have been in the extremity or parts involved, for days or even weeks previous, severe pain which is intensified as the attack develops.

The seizures are paroxysmal. The parts involved become pale or even corpse-like; they do not bleed when pricked, are cold, and movement is difficult. This latter, Raynaud suggests, is due to a defect of afferent impulses and not to muscular weakness. The nose, cheeks, chin, and ears are but seldom invaded. The case of Mr. G., who consulted me a short time ago, well illustrates this phase. In September, 1902, he noticed that the first phalanx of the thumb, first and second phalanges of the index, and first phalanx of the ring finger became cold and white when exposed to the air or on touching something cold. The local syncope was at first attended by pain in the thumb and index finger, and there were also isolated white spots distributed over the unaffected surface of the ring finger. Occasionally, should the hand become very cold, local asphyxia would occur on its dorsal surface. Sometimes, as the local syncope disappeared, local asphyxia would take its place. The involvement of the thumb here observed is very exceptional; it is usually unaffected.

Local syncope may be unilateral or bilateral. The upper extremities are more frequently involved than the lower. The syncope may attack one finger or all, or it may attack the different phalanges in an irregular manner. There is no regularity in the frequency of the seizures; they may occur once or many times daily, or there may be intervals of uncertain length. They may occur for weeks, months, or years and then cease, either absolutely or for an indefinite period. In my case of Mrs. M., already referred to, there was an interval of twenty-seven years.

The part affected is cold to the touch, tactile sense is impaired, and the various forms of sensibility are irregularly and unequally involved. Temperature sense and pain sense may be lost, or that of temperature may be present and those of touch and pain lost. Local syncope may disappear without leaving any trace or causing any pain. Frequently there occurs a decided reaction accompanied by pain and by annoying paræsthesias.

Local asphyxia constitutes the second stage of this symptom complex. Usually it is preceded by local syncope, but not invariably so. As already stated, local syncope may disappear, leaving no trace and causing but slight discomfort, or it may be followed by a blue, bluish-black, bluish-white, purple, violet or reddish discoloration of the skin affecting, sometimes symmetrically, sometimes unilaterally, the hand, fingers, feet, and toes. A livid marbling of the adjacent parts may be associated with this characteristic discoloration.

Local cyanosis differs from local syncope in not being confined chiefly to the limbs, but in attacking as well the ears, face, lips, chin, tongue, and trunk. Raynaud describes a lividity of the breasts, a painful neurosis which merits the appellation of local asphyxia of the mammæ. The extreme sluggishness of the circulation in the cyanotic area is shown by the slow disappearance of the white spot made by pressure.

The manner in which the parts are involved is most irregular, there being no definite order of sequence. The lower extremities are less frequently attacked than the upper. Sometimes an œdematous condition develops in the asphyxiated parts and instead of a blue or black discoloration of the skin, with a lowered temperature, the affected area assumes a bright red hue, is hot, and becomes covered with perspiration. The œdema pits upon pressure and may precede or even take the place of the cyanosis. One part may be cyanotic and swollen, while at the same time another may be only swollen. The œde-

ma is not confined to the extremities, as the ears, the face, and the tongue may also be affected (Monro).

Local asphyxia may or may not be attended by pain; often this is absent unless the cyanotic part is handled. The pain at times becomes neuralgic in character, or it may be continuous, and it varies from a slight discomfort to an intense agony. A patient of my own complained of irregular attacks of numbness for two years before the onset of the disease. In this case the pain was most agonizing from the very inception of the local syncope, which was in a few hours followed by local asphyxia, the appearance of the latter in no way mitigating the suffering.

There may be loss of motion, temperature sense, and tactile sense. Electrical sensibility may also be affected. Monro has collated some interesting cases showing that vaso-motor instability is certainly a marked feature of this condition. Calmette could readily induce an attack in the susceptible parts by putting cold water on any portion of the body. Raynaud, by using electricity on one hand, caused the disappearance of cyanosis from both, while Israel Sohn, by applying friction to the upper limbs, caused the disappearance of local asphyxia from all four extremities.

The character of the onset in local asphyxia is most erratic. Discoloration may precede or follow the pain, or the two may be associated. The development of the cyanosis may be very sudden; it may take the place of, precede, or follow the local syncope; its duration may be a few minutes, hours, or days; there is no regularity in the occurrence of the attacks. The pulse may be normal or absent. There is no fever, but occasionally there are depression, headache, insomnia, aphasia, convulsions, and even unconsciousness.

Patients who have long been subject to local asphyxia may suffer from changes in the skin called "tachetic" patches; these purple areas are very persistent, are unaffected by pressure, and are probably due to extravasated blood pigment in the deep layers of the skin (Monro). Local asphyxia, once having been developed, is very likely to recur; this liability is not, however, so great as in syncope. The Scotch verdict, "not proven" should be applied to those cases which are reported as cured.

The idea that a disturbed innervation might bear a causative relation to gangrene was entertained long before Raynaud wrote his now celebrated thesis. His contributions gave to the medical profession a new clinical concept, a disease with certain definite characteristics, viz., local syncope, local asphyxia, and symmetrical gangrene, a distinct morbid entity. For more than twenty years medical men regarded this disease as an idiopathic affection dependent upon a vaso-motor disturbance. Although the clinical entity described by Raynaud is generally accepted, it is now believed to be, in the majority of cases, merely a symptom (symptom complex) occurring in a great variety of diseases.

Symmetrical gangrene is the last and most important of this trinity of symptoms. Gangrene is usually associated with local asphyxia; in a very few instances local syncope and gangrene are combined; often the three classical symptoms are all present, while in about two per cent. of the cases gangrene occurs alone.

Raynaud emphasized its symmetrical nature, but it may occur unilaterally as well.

The parts most likely to be affected are the extremities and ears; the thumbs suffer less frequently than the fingers. The tip of the nose, the cheeks, lips, and chin may be affected. Desquamation of the epithelium may be the only evidence of the necrosis. Unfortunately this is but infrequent. The nails may fall off, but usually reappear. Raynaud describes a peculiar type of blister, a large bulla, of a deep brown color when dry, due to gangrene of the papillary layer of the derma. Necrosis may attack one or more of the phalanges of the digits, or a portion of the foot, or even the entire foot. In one of my cases both legs were gangrenous.

The attack may be so severe that spontaneous amputation of the extremities may occur. Recovery is slow, usually extending over months. If the gangrenous process is limited to small necrotic areas, the only evidence of its existence, discoverable after recovery, will be the presence of a slight scar or scars, and the number of these is an index of the number of previous attacks. The gangrene is dry and the parts become mummified. It is usually accompanied by pain which, in grave cases, is most agonizing. The general health may suffer seriously through insomnia, pain, and suppurative processes. Fortunately, "Raynaud's phenomena" often occur for years without the presence of gangrene; indeed it may never supervene, but its appearance is always a matter of grave importance.

The prognosis of Raynaud's disease, considered as a pure neurosis, is, if children are excluded, always good. When associated with other morbid conditions it is that of the underlying disease. For example, a patient of my own died during a very severe attack of Raynaud's disease, gangrene and mummification being very pronounced, but death was evidently the result of a chronic Bright's disease, from which she had suffered for years.

Diagnosis is easy when the three typical stages are present. The occurrence of local syncope and local asphyxia, either separate or associated, constitutes what is known as "Raynaud's phenomena," but the additional element of gangrene is necessary to justify a diagnosis of Raynaud's disease. The age, the sensory, motor, and trophic symptoms, together with the symmetry of evolution, will usually enable one to form a correct conclusion. Gangrene due to old age, ergot, and trauma is wanting absolutely in etiological and clinical characteristics.

There is a consensus of opinion among authors that local syncope and local asphyxia are of vaso-motor origin. Local syncope is undoubtedly due to spasm of the arterioles; authorities are at variance as to whether the venules do or do not participate in this spasm. Local asphyxia is due to an isolated spasm of the smallest venules which impedes the outflow of the venous blood from the capillaries, thus producing stasis (Weiss). The seat of these disturbances is situated in the vaso-motor centre of the medulla oblongata, which regulates blood pressure through the innervation of the muscle fibres of the blood-vessels; and this centre, like any other, may be irritated reflexly or directly, and in each case, varying with the intensity of the irritation, will there be an increased tonus of the vaso-motor constrictors and a spasm of the vessels will result (Burdach).

The explanation of the occurrence of the gangrene is more plausible on the supposition of the existence of trophic nerves and a consequent perversion of trophic influence, than it is under Raynaud's theory of insufficient nutrition due to the occurrence of local syncope and local asphyxia.

We now come to the important question: Is Raynaud's disease to be regarded in all cases as merely a symptom complex of other morbid conditions, or may it occur at times as an uncomplicated neurosis? There can be no doubt that the proper conception would be to class it under both heads, with which the present tendency is in accord. In a majority of instances it is to be regarded purely as a symptom, while in rare and exceptional cases it is, without doubt, a genuine neurosis.

Raynaud's disease offers an excellent example of pernicious habit on the part of the vaso-motor system. The therapeutic problem is how to overcome its morbid paroxysmal manifestations, and, above all, to prevent by proper hygiene and appropriate treatment the tendency to recurrence. If the attack is severe and occurs in winter, and especially if the patient is debilitated and advanced in years, a change to a warm climate is advisable. The effort should always be made, during the interval between the attacks, to build up the general and nervous strength, for by this alone can the paroxysmal tendencies be retarded and possibly overcome. Everything that favors a seizure, especially undue exposure to cold, must be carefully avoided. Appropriate clothing, suitable to the season, should be worn, constriction of the circulation guarded against, and the water used in washing ought to be at blood heat.

If the attack is at all pronounced, it would be best for the patient to remain indoors in a uniform temperature. A mixed diet is the most suitable. Great caution should be employed in the use of stimulants, as the liability on the part of the neurotic to acquire a taste for alcoholics must never be lost sight of. If the patient has been at all subject to malarial influences quinine is the remedy *par excellence;* in any event it is a drug of unquestioned value. Opium has been greatly lauded; its chief efficacy, however, lies in its power to alleviate pain, to promote sleep, and thus to conserve the strength of the patient. Should the severity of the symptoms demand morphine, it ought never to be given hypodermically at the seat of pain, as the resulting irritation may cause gangrene. Nitrite of amyl and nitroglycerin should be given a trial. The use of thyroid extract is spoken highly of by Short. Iron, arsenic, nux vomica, strychnine, cod-liver oil, and malt are all useful drugs and potential aids in the process of upbuilding.

Spinal galvanization is perhaps one of the most efficient remedies. The negative pole should remain stationary over the sacrum, while the positive is slowly moved up and down the entire length of the spine, care being taken not to interrupt the current. The current strength should not exceed fifteen milliampères; séances should be daily, lasting not over five minutes; if the room is suitably warm, it would be advantageous to vary the spinal treatment by applying the positive electrode directly over the affected area. Galvanization of the cervical sympathetic is recommended. Static electricity is an agent of no mean value, general franklinization being the method employed, together with a local application of the static spray. This form of the current is much more easily applied than faradism, and is in every way as effective.

Massage, general and local, has in certain cases proved very efficacious, but great care must be exercised in its application, as the devitalized skin is liable to ulcerate if roughly handled. Should the immediate area affected be too sensitive to allow of its use, the adjacent parts may be treated. Warm fomentations have been found useful. A fifty-per-cent. alcoholic solution of menthol applied to the members involved, which should then be wrapped in cotton and covered with oiled silk, is to be recommended. It is of first importance that the extremities affected be kept carefully wrapped in flannel. I have known this simple precaution to be of more value than all medication.

The treatment of the gangrene is a purely surgical matter. Sufficient time, however, should be allowed for the demarcation line clearly to show itself, as the actual gangrene may include but a small part of the affected extremities.

Much will depend upon the tact and resourcefulness of the physician, and with all his remedies he must not forget the therapeutic value of hope. *C. Eugene Riggs.*

REACTION OF DEGENERATION (De R) is the term applied to certain changes in electrical excitability, produced by a lesion of the spino-peripheral neuron in any part of its course (the anterior horns of the spinal cord, or the cerebral motor nuclei, the motor roots of the nerves, or the peripheral nerves). When the anatomical lesion is profound complete De R is the result. Partial De R is found in less severe lesions. The nerves and muscles exhibit different reactions to the current. In complete De R, within a few days after the onset of the primary disease, the nerve exhibits a gradual diminution of reaction to the faradic and galvanic currents, and within from one to two weeks its irritability is entirely lost. The muscles supplied by the nerve react differently to the two currents. Their faradic excitability gradually diminishes with the corresponding loss of nerve excitability. The galvanic excitability, on the other hand, presents very peculiar changes. These are best seen when an electrode (preferably a large one) is placed upon an indifferent spot, and the other small electrode is placed directly over the muscle to be tested. Normally, it is found that the muscle responds most promptly to the closure of the cathode (CaCl), then to the opening or closing of the anode (AnO or AnCl), and finally to the opening of the cathode (CaO). The contraction of the healthy muscle is quick, lightning-like. In complete De R the response of the muscle is slow and, on passing the electrode over the belly of the muscle, one set of fibres contracts after the other. This slowness is the most constant feature of the De R and in itself suffices for the diagnosis. In addition, the diseased muscle reacts to an unusually mild current. This is seen very well, for example, in Bell's palsy by placing one electrode upon the chin, when it will be found that the paralyzed chin muscles react to a current which is utterly inadequate to produce a response in the unparalyzed muscles. Complete De R is also attended by the so-called reversal of the formula. It is found that contraction (C) is obtained most readily on AnCl. CaCO also increases relatively and may be greater than AnCO. As the disease progresses and the electrical excitability is gradually lost, AnClC with very strong currents may furnish the last evidence of the all but extinct muscular vitality. This is sometimes found even after the muscle has been completely paralyzed for a year or more.

In partial De R the excitability of the nerves may be merely lessened, the muscles may still react to the faradic current, but the contraction to the galvanic current is slow and perhaps shows some changes from the normal formula. If recovery takes place there is a gradual inverse return to the normal conditions.

Leopold Putzel.

RECRUITS, EXAMINATION OF.—The army of the United States is ordinarily recruited by voluntary enlistment; in time of war enlistment may be compulsory, under Enrollment Acts.

The Recruiting Service is under the direction of the adjutant-general of the army, and is organized into two branches: the general, for infantry and artillery, and the mounted, for cavalry.

The Legal Requirements for Enlistment.—Any male person above the age of sixteen and under the age of thirty years, effective, able-bodied, and free from disease, of good character, who does not appear to be of intemperate habits, and who has a competent knowledge of the English language, may be enlisted, due attention being given to the restrictions in this article concerning minors. This regulation, in so far as it relates to age, does not apply to soldiers who may re-enlist, nor to those who have served honestly and faithfully a previous enlistment in the army. Applicants for enlistment are required to furnish such evidence of good character as they can obtain. With a view to determine their fitness and aptitude for the service, and to give them an opportunity to secure testimonials, as well as for the inquiry and deliberation contemplated by the Second Article of War, they may be retained and provided for at rendezvous, for a period not to exceed six days, after having signed the declaration of intention to enlist and passed the medical examination. Men so retained are known as *recruits on probation.* The enlistment papers of any such recruit who may be unfit or undesirable for the service, or who may not desire to remain in the service, will not be completed. The enlistment papers of recruits who are accepted and duly sworn will bear the date on which the enlistment is *completed* by administering the oath (A. R., Art. lxxi., 908). . . . The major-general commanding the army is of opinion that if satisfactory evidence of good character, habits, and condition cannot be furnished by the recruit, or be otherwise obtained, the presumption should be against him and he should *not* be accepted; and, further, that these views are concurred in by the Secretary of War and should govern in all cases (G. O., No. 1, Headquarters Recruiting Service, 1890).

These rules and articles shall be read to every enlisted man at the time of, or within six days after, his enlistment, and he shall thereupon take an oath or affirmation in the following form: "I, A. B., do solemnly swear (or