

THE THIRD STAGE OF LABOR:
AN ETHNOLOGICAL STUDY.

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(With five woodcuts.)

LABOR seems completed with the expulsion of the child, the one act upon which the efforts of the accoucheur and the expectations of the patient have centred, the culmination of hours of suffering and anxiety; both feel as if their work were completed, and but little thought is given by either to the remaining afterbirth which is usually expelled without much suffering to the mother, and if nature be not interfered with, rarely calls for any exertion on the part of the attendant.

Accidents occurring during the birth of the child are immediately followed by alarming results, while those happening

during the delivery of the placenta can be ignored at the time, although the consequences are often disastrous. The third stage of labor accordingly excites but little interest, and is, I may almost say, unduly neglected; some radical changes have of late years been made in its treatment, but, although advocated by able obstetricians, they have by no means met with the hearty concurrence of the profession at large, of which they deserve and which their importance justifies.

My attention has been recently directed to what I may call the natural management of labor, or the customs observed during childbirth by such people as are not yet governed by modern obstetric law, and who follow the dictates of instinct in this purely mechanical function of our animal existence; my researches in regard to the position of women in labor have shown me the correctness of the course adopted by those untutored people with whom methods have been traditionary for ages which have not until now reached us, in this advanced nineteenth century, as the teachings of our most scientific obstetricians; and I deem it of interest, if not of some little practical importance, to study the management of the placenta, indeed the treatment of the patient during the third stage of labor, among uncivilized people who are as yet forced to rely upon their instinct for their obstetric practice, and upon whom the obstetric laws, and I may say obstetric fashions, of to-day have not yet encroached. It is only of late that ethnological studies have developed and have brought to light the innermost life and most private and secret customs of those interesting children of nature; but very little attention has, however, been paid to their obstetric practices, and above all to this very uninteresting and unimportant detail.

The management of the third stage of labor has received so little attention that I shall be obliged to confine myself, by reason of the scanty data at my command, to the leading points; I nevertheless hope to be able to develop the more important features sufficiently to show that these untutored people, following the guidance of instinct, have, as a rule, pursued a much more correct practice than can be attributed to the followers of scientific midwifery; above all they have fully appreciated, in resorting to abdominal expression, the dangers of the *vis a fronte*, and the importance of the *vis a tergo* as their main reliance for

the speedy and successful removal of the placenta. Nor are the data as broad as I should like to see them; I can gather but little from the records of travellers or from the pages of history; the information I have been able to obtain is almost altogether in regard to the customs now observed among the North American Indians, and for this I am indebted to the kindly interest shown by the surgeons of the United States Army, and the physicians of the Indian Agencies who have freely responded to the questions I have put in the circular sent out through the Smithsonian Institution by the generous offices of Major J. W. Powell, the director, and others of the gentlemen connected with the Bureau of Ethnology, above all Dr. H. C. Yarrow.

I shall discuss, first, the management of the third stage of labor in simple cases, as it is customary among the various tribes, and this will be best understood by describing, I., those methods which are adopted for the purpose of expelling the placenta, in which the patient retains the same position which she occupied in the delivery of the child, and, of these, the one ordinarily practised is by the employment of a *vis a tergo*, most commonly by a force applied externally from above downwards, by manual expression; and secondly, by action of the diaphragm, by the use of emetics. Much less frequent is the employment of the *vis a fronte*, that fatal traction upon the cord, which forms the third group. Somewhat different from these methods is a fourth, which I have classified under II., comprising the customs of all those tribes who look upon a change of posture as the important element for the purpose of accomplishing the expulsion of the after-birth; a change of position is made immediately after the birth of the child, and the patient assumes a different posture from the one occupied during the earlier stages of labor. This is not frequent in ordinary cases, but is a usual resort in case that some difficulty is experienced in the removal of the placenta. I have then considered under different heads the treatment of simple and difficult cases, and will next review the management of the cord, as it may be of interest to note the usual time of cutting the cord and the methods of cutting and tying it; finally I will briefly indicate some of the more peculiar customs, and the, to us, strange views entertained with regard to this stage of labor.

MANAGEMENT OF SIMPLE CASES.

The placenta delivered in the same position which has been occupied during labor pains and the expulsion of the child.

Manual expression.—Among our Indians, as among all uncivilized nations, external manipulations are resorted to wherever good can be accomplished by them, and in obstetric practice massage and expression are freely and effectively used. The third stage of labor is a very short one, the placenta usually escaping very soon after the birth of the child; and by far the most common, the prevailing treatment in fact, is the one we will now consider. The patient and her assistants retain the positions relatively occupied during the birth of the child; the parturient, as is commonly the case, kneeling, whilst an assistant, who kneels or stands behind her, with her arms around her waist and the palms of her hands upon the fundus of the uterus, keeps up a steady pressure upon the contracting organ, and in case that the muscular action is not sufficient for the expulsion of the after-birth, she hastens its progress by an effective kneading. Moreover, we know that the kneeling, squatting, and semi-recumbent positions are those in which the abdominal muscles can be most effectively used for the purpose of expelling any of the contents of the abdominal cavity. This is true of the Comanches, of the Klamath, the Crows, Nez-Percés, Peorias, Shawnees, of the Kiowa, Caddo, Delaware, Wyandotte, Ottawa and Seneca tribes. The Clatsops carry out this idea perhaps even more effectively by placing a bandage about the patient's abdomen immediately after the expulsion of the child, "to keep the placenta from going back further into the body." And I may here state that this is the ruling idea in their treatment, as they dread such an accident very much, and unless the placenta is speedily delivered, the uterus responding to their manipulations, they are at a loss what more to do, and the patient is usually left to her fate, rarely escaping the consequent septicemia. The Dakotas permit the patient, if exhausted by the labor, to leave the kneeling posture and lie down during this last stage. Some of the tribes belonging to the great Sioux nation—the Blackfeet, Uncapapas, and the lower and upper Yanktonans—follow

this most judicious mode of delivering the afterbirth. In case that steady pressure from above downwards upon the fundus, and kneading of the tumor, does not suffice, the abdomen is rudely kneaded with the clenched fists, in various directions, in their endeavor to push the placenta out, as I gather from an interesting description of a case of retarded delivery of the placenta among the Uimpynas.

The Kootewais kneel during labor, and after expulsion of the child continue to knead the abdomen, exercising the same pressure downward as when aiding the descent of the child, and in case this fails, they introduce the hand into the vagina and remove the placenta, giving the woman one joint of an unknown root to stop the hemorrhage, following it by another joint in fifteen minutes or half an hour until it does stop, with the idea of checking the hemorrhage gradually. They let the patient bleed to a certain extent, and if it exceeds their idea of what she may well lose, they give the root. No reason is given why they should not stop the bleeding at once. This is one of the very few tribes who have any knowledge of the removal of the placenta by the introduction of the hand in utero. The Papagos also seem to remove the placenta forcibly, if it does not speedily come by natural means. The squaws of several tribes are delivered in a squatting posture, and among them, also, the placenta is delivered precisely as the child was, the patient and her assistants retaining the same position, and the same pressure and manipulations being kept up. This is true of the women of the Laguna-Pueblo, of the Coyotero-Apaches, and some of the tribes of the Sioux nation. The Brulé, Loafer, Agallala, Wazahzah, and Northern—among these, as well as other of the Sioux tribes, and the Kiowas, also, a change of posture is made. The squaw belt is often used, and the placenta is delivered almost immediately after the child, by the gradual tightening of the broad leather belt, which is strapped above the womb as soon as the child has appeared.

The women of the lower order of Mexicans, who are also usually delivered in the squatting posture, sometimes kneeling, follow the same custom as their Indian neighbors, but of them I am told that the third stage of labor is a much longer one. The midwife busies herself about the new-born child,

while the patient is kept in her uncomfortable position, kneeling or squatting, with her rear and lateral assistants, until the placenta is expelled. This takes place seldom in less than half an hour, but generally within an hour; if not, the patient receives a more or less violent shaking, according to the exigencies of the case, the rear assistant, with her arms about the patient, actually shaking her up and down, and, if this does not answer, as a last resort, efforts are made to provoke vomiting. A decoction of some kind, either laxative or nauseating, is given the patient for the purpose of assisting the expulsion of the placenta; but among the Mexicans a cup of corn gruel, *atole*, is regularly given after the expulsion of the child. Among those who retain the semi-recumbent position in which they are usually delivered are the Wacos, Hoopas, lower



FIG. 1.—Manual expression of the placenta, Penimonee Indians.

Klamath, and Penimonee. This is a convenience for the midwife or assistant, as she can also assume a more comfortable position, and knead the abdomen to better purpose.'

The Indians of the Pacific coast follow the same custom, and they, as well as all other tribes, seem anxious to attempt the speedy expulsion of the placenta, so that an effort is always made to assist the uterus in casting off the remaining after-birth as soon as the child has been removed, and placed in a safe place. The accoucheur makes gentle, but tolerably firm traction on the cord with one hand, and with the other manipulates the abdomen over the uterine globe. At the same time, if thought necessary, the assistant will gently press the abdomen; both hands, with the distended fingers, being laid above the womb. At times, he does still more by kneading, with a

view to pressing the secundines out of the uterine cavity, but if these efforts fail while the patient is in their usual obstetric position, the semi-recumbent, she is raised to an erect position, and then, well supported, the manipulations of the uterine globe are continued, and a more firm traction is made upon the cord.

Of the Flat-heads and Pend-oreilles, I am told that the placenta, in almost every case, is delivered with neither massage nor expression nor traction on the cord, nature, unaided, completing the labor; very decided means are, however, resorted to in case delay should occur, which is very rare. Among those who assume the semi-recumbent position are also the Utes, Navajoes, Apaches, and some of the Nez-Percés, who assist nature by kneading the abdomen, but rarely by actual expression or traction upon the cord; they, however, expect to hasten the expulsion by anointing the abdomen with greasy unguents or decoctions of herbs.

The Burmese are among the very few people who adopt a *dorsal decubitus* as the obstetric position, and forcibly expel the placenta more by beating the abdomen than well-directed manipulations, and in extreme cases, by sitting or standing upon the abdomen and pressing with the feet upon the uterine globe.

The Makahs, of the Neah-Bay agency, retain the sitting posture in which the child is delivered, but whilst this, to them, apparently simple proceeding is always managed without professional assistance of any kind, skilled help is called as soon as the child is born. Until then nature is allowed to take its course, but as soon as the child is expelled, an old woman, who makes this a specialty, is called to deliver the afterbirth, which she does by pressing and working the abdomen constantly until the placenta and the clots are removed. This person has nothing whatsoever to do with the delivery of the child. The same position is occupied by the women of the Skokomish agency, and here, also, the very best practice is followed, the placenta being allowed to come away without any manual interference except expression over the region of the womb and a slight traction on the cord.

The Brulé Sioux and Warm Spring Indians retain the standing posture, in which the child is delivered; the midwife,

standing behind the patient, aids the naturally rapid expulsion of the placenta by pressure on the fundus with her hands, varied by a kind of churning manipulation.

Intra-Abdominal Pressure.—The use of the diaphragm as a powerful aid to all efforts to expel the contents of the abdominal cavity is well-known to our midwives, and we know how frequently they direct their patients either to hold their breath or to scream, as the exigencies of the case may demand; but, fortunately, they do not resort to measures quite so violent as our Spanish neighbors in Mexico, who assist the expulsion of the placenta by vomiting the unlucky patient. Some of our Indian tribes also lay stress upon the intra-abdominal pressure, and the assistance of the diaphragm and abdominal muscles, but only in case of retention or delayed expulsion, and hence we shall speak of this method farther on. The Somali of Central Africa, however, habitually give the patient warm mutton suet to drink after the expulsion of the child; this has a laxative effect, and, with the contents of the bowels, those of the uterus are expelled.

Traction on the Cord.—Traction upon the umbilical cord appears so natural, and is certainly so tempting a means of removing the placenta, that it is much esteemed by a class of meddling midwives which abounds in all civilized countries to the detriment of parturient women, but the untutored savage, guided in his practice by instinct and observation, is too shrewd to seek the removal of the retained placenta by such dangerous means.

Although it is customary, among some of our Indian tribes, to make a certain traction upon the cord, I am uniformly told that this is always done with extreme caution, and but very few make use of it to drag down the afterbirth—a manipulation fraught with so much danger, and unfortunately so common among more intelligent people.

The Crows and Creeks are usually delivered prone upon the stomach, and the placenta is rapidly expelled, either in the same posture or while standing; in rare cases it is delayed, and then it is allowed to remain until it decomposes, and, remarkable to say, pyemia rarely follows, probably on account of the naturally strong constitution of the race. Among them, gentle traction upon the funis is the only assistance

accorded to nature, and if there be much resistance, it is at once stopped, and the placenta allowed to remain, in preference to attempting its delivery by stronger traction.

The Rus, Gros-Ventres, and Mandans are confined in a kneeling posture, in which the placenta also is expelled, but if it does not come away rapidly, with some little rubbing of the belly with the hands greased with turtle fat, the accoucheur pulls gently and steadily on the cord, evidently relying somewhat upon this traction for the removal of the placenta.

The worst practice is that of the Cheyennes and Arrapahoes, who retain the dorsal decubitus in which the child is expelled, but never wait for the expulsion of the placenta by the proper contraction of the womb, removing it at once by traction upon the cord, which will often break under the rough usage to which it is subjected, and the unfortunate woman will then often suffer from severe hemorrhage, due to the retention of the placenta, as no effort is made to remove the organ after the rupture of the cord. Massage is resorted to, when the placenta does not readily respond to traction, and the accoucheur has judgment enough not to pull too hard. The Chippewas drag down the placenta by the cord, if it is not readily expelled with the assistance of external manipulation.

Delivery of the placenta with the patient in a different position from the one occupied during the expulsion of the child.

A change of position is not infrequently made immediately after the birth of the child, with a view to hastening the expulsion of the after-birth. As this period of labor is a short one, an uncomfortable position, if otherwise advantageous, may be readily assumed; and, moreover, the muscular effort, which the patient involuntarily undergoes in making this change, will assist the contraction of the womb. The change most frequently made is to a standing posture. Thus the squaws of the Cattaranguts rise to their feet from the kneeling posture, which they occupied during the birth of the child, with the idea of facilitating the expulsion of the afterbirth. If this does not take place within a short time, the attendant makes traction on the cord, at the same time making downward pressure over the abdomen, while the parturient maintains the standing posture.

Dr. D. D. Taylor, surgeon U. S. Army, in detailing the labor of a Sioux squaw whom he delivered, seated cross-legged on the floor, says: "The moment I cut the cord she jumped to her feet, and, standing erect, seized the squaw-belt, a leather belt about four inches wide, which she buckled over her hips and abdomen, drawing it as tightly as her strength would permit. During this time the hemorrhage was very abundant; within a minute, however, the placenta dropped on the floor, the bleeding ceased, the womb becoming firmly contracted, and she sat down on a stool looking as if nothing unusual had happened. The belt was removed the next morning, and she



FIG. 2.—Use of the squaw-belt, Sioux Indians.

remained up and went about the house as usual. I saw no other attempt at expression used but the application of the belt, and this, I believe, is universal among the Sioux for the purpose of expelling the placenta and preventing subsequent hemorrhage." The Crows and Creeks, as I have already mentioned, who are often delivered prone upon the face, chest, and abdomen, rise up as soon as the child is expelled, and rest upon a stick of some sort, with the feet spread wide apart. This is to allow the blood to flow very freely, and, as they think, the placenta to be more readily and easily delivered.

In the Utah Valley agency, the parturient drinks freely of hot water, both during the second and third stages of labor, arises to her feet as soon as the child is expelled in the usual obstetric position, kneeling, places a folded cloth to her abdomen, and, leaning forward over a stout stick, rests her body upon it, thus exerting considerable pressure over the hypogastric region—a method well calculated to favor the expulsion of the placenta, which is thus delivered without any further assistance. Upon the Sandwich Islands they change the posture of the mother to the semi-erect from the sitting, in order to



FIG. 8.—Placental expression as practised by the Indians of the Utah Valley Agency.

effect the speedy removal of the afterbirth, which they regard as very desirable and necessary. The patient assumes a semi-erect posture, more properly squatting, with the pelvis thrown backward and the knees partly flexed, the midwife at the same time supporting the child, as the cord is not cut until after the delivery of the placenta. At this juncture the patient thrusts her finger in the fauces to produce nausea or vomiting, which causes a spasmodic expulsive action of the uterus, resulting, not infrequently, in the immediate birth of the placenta and its membranes. If such is not the result, there is more or less excitement; the woman retains her erect position, is "loomied" over the womb and abdomen, a sort of kneading, squeezing operation, generally performed with the hands

by the attendant, until the flooding has moderated or almost ceased, when she is conducted to a stream or large containment of water, where she is washed, *secundem artem*, re-dressed, and returned to the house and its promiscuous inhabitants; children and all being allowed to witness the performance.

In Syria, some twenty or thirty minutes' time is given for the expulsion of the placenta, in the usual obstetric posture, in the chair; but if this does not take place, the cord is cut, and the patient put to bed for further manipulation. The Pawnees change the position of the patient in various ways, from the squatting posture, and pull upon the cord, evidently seeking to obtain expulsion simply by the muscular contraction resulting from the motion of the patient.

MANAGEMENT OF THE PLACENTA IN CASE OF RETARDED EXPULSION.

We have already seen that, as a rule, the delivery of the placenta speedily follows the expulsion of the child, nature being merely assisted by the continuance of the external pressure, which serves to assist and facilitate the contraction of the uterine globe. If the placenta does not readily come, they are at a loss what to do, and the patient is often left to herself. Dr. C. M. Harrison writes from the Mexican frontier that the Indians, and lower order of Mexicans, seem to have no other method of extracting the placenta than by traction on the cord, and that he has seen women dead and dying merely from the want of having the placenta extracted. The Dakotas use most violent means, and if the delivery of the placenta is at all retarded, it is forcibly extracted, and often with fatal consequences. Other of the Indian tribes have more reasonable ways, and it is these which we will now consider. The description given me of the attempts at delivery of a retained placenta by a Mexican midwife, by Surgeon H. R. Tilton, U. S. Army, embodies many of the more violent methods resorted to. When called to the patient, he found that she had been given a quantity of raw beans, between a pint and a quart, as one remedy; these were probably intended to swell, and thus drive out the placenta. This failing, she had been vigorously choked, as another means of expelling the after-birth. Finally, she was placed in the lap of her husband, in the obstetric position of that country, whilst he squeezed the

abdomen powerfully with his encircling arms. This last expedient, by the way, is a favorite method among the Mexicans for facilitating labor, the contracting uterus being steadily followed down by the arms of the husband. After all these means had failed, the after-birth was readily removed by the surgeon, upon the introduction of the hand, but the recovery of the woman remained doubtful, after the violence to which she had been subjected.



FIG. 4.—Placental expression, Mexico.

In the Laguna Pueblo, a tea made of the corn blossoms, or the tops of the corn, is given the patient in case the delivery of the placenta is retarded; hot cloths and hot stones are applied, and the uterus is manipulated externally with a twisting motion, which seems, indeed, a reasonable treatment. So also among the Cheyennes massage is resorted to in protracted cases, where the placenta is not readily removed by traction upon the cord; and among the Sandwich Islanders the womb is "loomied" over, whilst the patient retains an erect position, the abdomen being subjected to a sort of kneading, squeezing operation, by the hands of the attendants, until the unwilling

placenta is expelled. The same thing precisely is done by the Indians of the Pacific coast, who are usually confined in a semi-recumbent position, but in a retarded third stage of labor assume an erect posture, and whilst the attendants are firmly pressing the uterine globe, the accoucheur makes a certain traction upon the cord.

A rather violent and disagreeable method of dealing with the retained placenta is that of the lower order of Spanish women of Mexico, who retain the kneeling position, in which the child was delivered, and drink a cupful of soapsuds, which soon produces vomiting and the immediate expulsion of the afterbirth. The Gros-Ventre Indians rely upon the same plan, but approach it a little more gradually; they give an irritant powder (what it is, Dr. C. B. Greenleaf, surgeon U. S. Army, who kindly gave me the information, could not tell), first as a snuff to excite sneezing, and thus expel the placenta, and if this fails, it is administered by the mouth to produce vomiting, and these more forcible muscular contractions seldom fail to answer the purpose. The Rus and Mandans pull gently upon the cord, and rub the abdomen, giving, in addition, some remedies which they also use when the expulsion of the child is delayed. They have most faith in the berry of the ground cedar, castorium, or a button of the rattlesnake's tail, giving castorium in doses large enough to produce vomiting.

The method of the Comanches is to grasp the womb, knead and compress it, make slight traction upon the cord, and efforts to reach the placenta with the hand, in which the patient as well as the assistant takes part. The Papagos pursue a course which is certainly peculiar to them, of producing a more steady and, perhaps, not too violent traction upon the cord, by so attaching it that the amount of force to be used is left to the judgment and the sensations of the patient; it seems as if her sense of pain were to serve as a safety valve for the amount of force to be expended, and thus the proper limit determined and dangerous consequences avoided. In the interesting description given me by Surgeon Charles Smart, U. S. Army, who was called in a case in which the placenta had been retained for three or four days, he found the attendants in great alarm for the safety of the mother.

The patient lay on her side, with her knees drawn up, and every now and again, while he was learning the particulars of the case, she was directed to stretch herself out. The reason of this he found by introducing his hand for the purpose of making an examination; a buckskin thong, about the size of a whipcord, was made fast to the cut end of the funis, whilst the other extremity was discovered hitched around the great toe, and when she stretched the limb in bed traction was made on the placenta. The doctor found no adhesions and readily removed the afterbirth upon the introduction of the hand into the womb.

Since writing the above I learn that the Japanese, also, either carefully hold the projecting end of the cord or tie it to the patient's leg, in case the placenta should resist the simpler efforts directed toward its expulsion.

Among the Flat-heads, Pend-oreilles, and Kootewais, in case the usually speedy and natural expulsion of the placenta does not take place, the patient leaves the obstetric position, upon a low stool, and is made to stand and walk about, a proceeding which, though probably injurious to the delicate women of our civilization, is harmless and almost always successful among these Indians.

The Indians of the Misqually agency commonly use a steam bath in the very rare cases of retention. A hole is made in the ground and filled with hot rocks which are covered with leaves of the fir-tree; water is then poured upon them, and the woman made to sit over this vapor bath for a few minutes. This simple means seldom fails, and if it should, other help is called—maybe a woman, maybe a physician, if one is convenient.

MANAGEMENT OF THE UMBILICAL CORD.

The Indian midwives, as well as learned obstetricians, differ in their views with regard to the proper time for cutting the funis, but, as a rule, we find that the cord is not severed until labor is completed and the secundines are expelled; this practice we find among the Sandwich Islanders and among most of our Indians; the child remaining on the ground in front of the mother until the placenta is delivered; among the Kiowas, Comanches, and Wichitas, it is customary, after the placenta is delivered, that the assistant should take the cord

between her fingers and squeeze such blood as may remain in it back toward the placenta, and not until then the cord is cut and tied. So also the Blackfeet, Uncpapas, Lower and Upper Yankton-ans of the Sioux nation do not sever the funis until the placenta has been expelled, while the Flatheads and Kootewais, Crows and Creeks, cut the cord at once, and I may here add that, as soon as the cord is tied and cut and the child is removed, the parturient cautiously takes hold of the placental end of the funis, believing that, if she should let it go, it would return into the uterus. The natives of Syria wait from twenty to thirty minutes before cutting the cord, but if the afterbirth is not expelled by that time, it is severed and the patient put to bed.

Some difference also seems to exist, and probably with reason, for the methods of each, as to the distance from the child at which the funis should be tied. The Wakamba, in Africa, use threads of the bast of the *adansonia* or monkey-bread tree, and tie the funis tightly two or three inches from the navel, the Mexicans some three inches. The Japanese tie the funis in two places, about one inch apart, close to the child's body; the Comanches, on the contrary, using only one ligature, tie the cord about a foot from the body of the child, and in Africa we find one of the tribes, the Waswahili, where the cord is also left very long and slowly dries; the navel in later years being often found the size of a fist. The Loango, of Middle Africa, on the contrary cut the cord short and dry it rapidly; it is severed at double the length of the first joint of the thumb, or is measured off to the knee, then the child is taken to the fire and the remnant of the funis is steadily pressed by the warmed fingers of the numerous attendants so as to hasten its drying, which is completed in twenty-four hours; then the withered mass is forced off with the thumb nail and burnt (Indiscretus aus Loango; Dr. Peschuel-Loesche, *Ztschrft. f. Ethnolog.*, 1878, X., p. 29).

The Syrians tie both sides; the Catarangut Indians ligate only one end, the child's end; so also the Blackfeet, who, however, take the precaution to pinch the protruding placental end of the funis with the fingers, so as to prevent oozing.

Certain superstitions also exist in regard to the method of cutting the funis, a dull instrument being frequently used, prob-

ably on the principle of the modern saw-knife, as bruising and crushing rather than cutting, and thus preventing hemorrhage. Some of the African tribes, the Wakambi for instance, make use of their ordinary knives; the Loango, however, would deem it a misfortune to the new-born babe to use anything but the edge of the stem of a palm leaf; the Papagos of Brazil cut the cord with a sharp fragment of a vessel or a shell. The Hoopas, Klamaths, and other of the Indian tribes chew off the cord. The Klatsops, as we have seen, pinch one end with their fingers. These various procedures, now traditional superstitions, have, probably, originated in some thinking mind and good reasons have existed for their use.

PECOULIAR SUPERSTITIONS AND CUSTOMS.

The Sandwich Islanders, like many of our Indians, accustomed to the speedy expulsion of the afterbirth, are in great alarm if this does not occur, and think that a rapid delivery is all important; in case their simple means do not succeed, they do not seem to worry much about the patient; the Menominees and others leaving her often in the same position for days, whilst the Crows and Creeks and allied tribes, and the Mexicans also, cease to bother about her, leaving the placenta until it sloughs away, or the patient succumbs to the consequent pyemia. The African negroes, either on account of ignorance or superstition, rarely make any attempt at artificial removal of the retained afterbirth. Among all these savage people, a certain belief seems to exist that, if nature, aided by their simple and rational means of external expression, does not speedily expel the placenta, it must not be interfered with and they turn away from the unfortunate sufferer; should the cord tear in their efforts at traction, which fortunately are, as a rule, gentle, they give up the patient; hence we see with what care the Kootewai squaw seizes the placental end of the cord as soon as it is cut in order that it may not escape back into the womb; it is possible that some such superstition, rather than obstetric knowledge, should cause the Indian midwife to make but gentle traction on the cord, and induce her to rely mainly upon external pressure, either by belt or hand, or even such as may be caused by the efforts at vomiting; possibly it may have been the teaching of some shrewd law-giver, but there is certainly

some fear which prevents the women of savage tribes from making that dangerous traction upon the navel string which is so common among their white sisters; it is truly unfortunate that no such superstitious fear governs the civilized midwife.

A peculiar trait is also developed among many of these people which we are familiar with in the superstitions of some of our typical old women, who are often grieved that they are not permitted to follow their inclinations and do as their feelings and their belief dictate. The Comanches and other nations have a way of secretly and mysteriously disposing of the after-birth, so also the Loango and many of their African sisters; it is usually buried, as is customary among the Japanese; but I

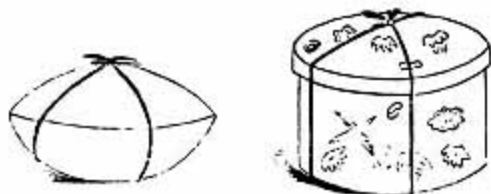


FIG. 5.—Vessels in which the placenta is buried, Japan.

hardly believe it is quite as effective as that of some of the natives of Brazil, who, if it can be done secretly, eat the organ which has been recently expelled in a solitary labor. If observed, they burn or bury it.

A peculiar superstition is that of the Loango, who hasten the drying of the navel, force it off within twenty-four hours, and burn it, believing that the child would fall into evil ways if the remnant of the funis should become food for the rats, and as long as the navel is still on the child, no male being, not even the father, is admitted to the presence of the new-born.

CONCLUSIONS.

The same doubts as to the proper management of the third stage of labor which have annoyed our obstetricians seem to have arisen in the savage mind. We find various customs existing among the different tribes and people, and, right or wrong, they cling to them with the pertinacity of the modern writer, well satisfied with the correctness of his own view. We find the same methods and the same errors, an occasional yielding

to the same temptations which beset the midwife of our advanced civilization, but in the main a correct practice predominates, and the untutored savage, guided by instinct and observation, pursues the very course which is now considered the most advantageous and scientific among our leading obstetricians.

I cannot refrain from quoting some points from the excellent remarks of Playfair upon the management of the third stage of labor in order to show how well his teachings are borne out by the instinctive practice of the savage. He says: "There is unquestionably no period of labor where skilled management is more important, and none in which mistakes are more frequently made. . . . The general practice as to the management of this stage is opposed to the natural mechanism of placental expulsion, and is far from being well adapted to secure the important advantages which we ought to have in view." The objections he makes to the ordinary practice are: "That it inculcates the common error of relying on the binder as a means of promoting uterine contraction, advising its application before the expulsion of the placenta; that it teaches that traction on the cord should be used as a means of withdrawing the placenta, whereas the uterus itself should be made to expel the afterbirth. This may seem an exaggerated statement to those who have accustomed themselves to resort to the method of pulling on the placenta, but I feel confident that all who have learned the method of expression of the placenta would certify to its accuracy. The cardinal point to bear in mind is that the placenta should be expelled from the uterus by a *vis a tergo*, not drawn out by a *vis a fronte*. . . . The distinct enunciation of the doctrine that the placenta should be pressed and not drawn out of the uterus we owe to Credé and other German writers, but it is only of late years that this practice has become at all common. Those who have not seen placental expression produced, find it difficult to understand that, in the great majority of cases, the uterus may be made to expel the placenta out of the vagina, but such is unquestionably the fact." Is this not the practice most commonly followed among our Indian tribes? And is not, in consequence of this method of treatment, the placenta, as a rule, rapidly expelled, and its retention a matter of very rare occurrence?

As a rule the patient retains the position in which the child is expelled, usually one most favorable for the use of the abdominal muscles, kneeling or squatting. Steady pressure is kept up upon the contracting uterine globe, and if its contractions cease, they are stimulated by massage, by a kneading, churning of the tumor, and aided by slight traction on the cord, the placenta is expelled. Moreover, we have seen that the Makah Indians, of the Neah Bay agency, are the only people who make a specialty of the third stage of labor; they require no assistance in the delivery of the child, but after it has been expelled an experienced woman comes to assist in the delivery of the placenta by expert manipulations of the abdomen with her hands. The North American Indians and the African negroes, undoubtedly other tribes also, have for ages followed a practice so perfect that only within the last few years the most alert of our obstetricians are in a position to compare with them; within the last decade, of this advanced age, constant scientific research has finally placed us upon a level with our less favored brethren.