I ordered a suppository at night made of iodoform twelve grains, coco butter three drachms, creosote and oil of cloves of each two drops. This amount makes twelve suppositories.

For inhalation, balsams of Peru and storax, oil of sassafras, of each one ounce, alcohol twelve ounces. Digest six days, filter and add one ounce of chloroform. Make a paper funnel and place in it a wad of absorbent cotton. Put from fifteen to twenty drops of this mixture into it and inhale five minutes every three hours. For the constipation, infusion of rhamnus purshiana, p. r. n.

I gave the following to the patient after meals as an antiseptic tonic:

Chloride of sodium four drachms, chloride of potassium two drachms, corrosive sublimate half a grain, water four ounces. Give one teaspoonful after the three principal meals, in two ounces of water or aromatic tea.

As an appetizer the following was all that could be wished: Extract cannabis indica six grains, extract ignatia two grains, salicin fifteen grains, phosphate of calcium half a drachm. Make into thirty tablets and take one thrice daily.

This not only created an excellent appetite, but kept the bronchial mucous membranes free from undue irritation.

For the high temperature she had the following: Tincture veratrum veride one drachm, hydrocyanic acid, dilute, one drachm, tincture prunus virginica, four ounces (made from the green bark, alcoholic strength one to six), put four ounces of the bark into sixteen ounces of the menstruum, give of this from twenty to thirty drops three times daily, in water, or an aromatic tea.

The diet was rare meat, not less than one pound in the twenty-four hours, and from that up to three pounds, condensed milk, bread made from cream of tartar baking powder, soft boiled rice, infusion of malt (made in the manner described), pineapple juice and orange juice, plenty of nice butter, fresh cream.

The principles of hygiene that I have formulated were fully carried out.

The patient was under my treatment for six months and perfectly recovered, and is now in good health.

A MIXTURE FOR HÆMOPTYSIS.

Bamberger is said to have approved of the following mixture in hæmoptysis:

- R. Turpentine, āā 3 j.
Oil of sweet almonds, āā 3 j.
Mucilage of acacia, āā 3 iv.
Simple syrup, āā 3 iv.
Distilled water, 3 v. mḡ .

One teaspoonful of this mixture may be given every half-hour.

INSTINCT IN ANIMALS AND INTELLIGENCE IN MAN CONTRASTED.

WITH AN EXAMINATION OF DARWIN'S DICTUM OF THE "MISSING LINK" AND LINNÆUS' DOGMA "NATURA NON FACIT SALTUS," WITH A FEW ORIGINAL OBSERVATIONS THEREON.

Read by Title in the Section of Medicine and Physiology at the Forty-Second Annual Meeting of the American Medical Association, held at Washington, D. C., May 5, 1891.

BY WILLIAM W. PARKER, M.D.,
OF RICHMOND, VA.

Instinct in animals is a matter of daily observation by every class of mind, and has always been a subject of great interest, nevertheless it seems still little understood. Writers in psychology are not yet agreed even upon its definition.

Ribot, a modern French writer, says it embraces "all those psychological phenomena occurring in animals, and all forms of mental activity, inferior to those in men." A German contemporary says "It is an act conformed to an end, but without consciousness of that end." Darwin's definition is more elaborate, but scarcely more definite; by reason of its length it is more open to criticism. He says "Instinct is an action which we otherwise would require experience to perform, when performed by an animal, more especially by a very young one, without any experience, and when performed by many individuals in the same way without their knowing for what purpose it is performed." This definition is certainly at fault when it claims that actions under the direction of instinct are performed "without knowing for what purpose they are performed." The dog that went once a week many miles to market alone certainly knew for what purpose he went there. The horses in Richmond that quicken their pace at midday when their heads are turned towards their stables, know why they prefer to go in that direction.

It may be impossible in a few set phrases, however carefully considered, to differentiate clearly human intelligence from what we call animal instinct. Their manifestations are so varied and numerous, and so interlocked, that like the lights and shadows in the landscape we cannot say where the line of separation really begins.

Why there should be such reluctance among modern writers in granting intelligence to animals is rather hard to say. The analogy in anatomy and physiology of man and the lower animals is very remarkable. The laws of digestion, assimilation, circulation, etc., are very much the same. We endeavor by vivisection to unravel the mysteries of digestion or indigestion in man.

In the brain of the animal we see analogy in structure; why may not there be analogy in function?

But to return. It seems to me sufficiently defi-

nite to say that "Instinct in the animals is a strictly limited knowledge or intelligence sufficient only first, for self preservation; second, for the propagation of the species; and third, to secure their usefulness to mankind."

SELF-PRESERVATION.

1. Of self-preservation. Love of life is an instinct universal in man and all animals. The she-bear beats her cubs and drives them up the tree at the sound of the dogs. The "danger cry" of the hen sends her chickens to shelter. Not to furnish the animal with sufficient intelligence to protect itself and its young would have been both a cruel and fatal mistake in the Creator. This point needs no further argument or illustration.

2. An equally fatal error would have been not to make provision for the propagation of the species. To do this requires far more intelligence in the animal than was needful for self-preservation. What man with his teeth and feet can build a bird's nest? Where is the man who can with his hands construct the delicate cells of the honey bee? or spin the attenuated spider's line.

How each cell is measured so that all its sides and angles are equal. What foreknowledge in the squirrel to provide in summer for the wants of winter, and yet how indispensable this knowledge.

There is no end of illustrations in this line, familiar to all who think at all. But let it be remembered that no bird can build for another. Each bee must work in its own hive.

How could the animal kingdom be useful to man without first, a good memory; second, a knowledge of persons; and third, some knowledge of property, but all limited. I think much of the remarkable ability of the horse and other animals to find their way home is due to memory.

But this does not meet every case. Some years ago, I visited a patient six miles from the city; there was a private pathway leading across a field cutting off a mile to the house, shown me by the messenger; it was winter, and the path could be very well seen. Five years after I visited the same patient in the summer; the way was lined on either side by high grass and weeds so that it was impossible to see the path. I was riding the same horse, and I looked hopelessly for the path, but the moment I got opposite to it the horse darted from the middle of the road and struck the path exactly. I could not see it till I got some distance in the woods, and supposed he had made a mistake. Here was a mathematical exactness, marvelous and incomprehensible; it was as exact as the magnet. Can there be any of this magnetic power in animals in regard to the cardinal points? guiding them with unerring certainty? What philosophy will solve this problem? And yet how necessary this exactness. If

the bird, five miles from its nest, did not know its exact locality, how could it ever get the information? There must be no uncertainty here, the least deviation would be fatal to the bird and its young. This knowledge is impossible to man; he, however, can inquire the way when lost. The bird must know certainly, or his creation is a failure. So doth God work! We all have daily illustration how the horse's memory is exercised here in the city; if you visit a patient in the morning and have to pass the same house a dozen times the same day, he will wish to stop every time. This is memory without reason, a low form of intelligence.

An equally important factor in the value of the animal to man is his recollection of persons; the dog knows every one in the family, children and servants, knows them day or night, knows their names and often their voices, otherwise he would be of no value as a guard. He would be worse than useless, he would be dangerous.

3. The animal, to be useful to man, must also have some knowledge of property. I had once a very clever dog. I have seen him kill three moccasin snakes in ten minutes; he would take them by the middle, shake them violently, drop them, pick them up again and shake them until they were dead; to do this successfully and safely required great dexterity. He seemed to know as well as I did that the bite would be fatal and hence he used the greatest precaution. I one day threw an old basket up a tree and it lodged there. I tried for some time with rocks and sticks to dislodge it but without success; this dog was with me; he remained under the tree all night and till the afternoon of the next day, fasting and guarding my property.

The dog will take the market basket home and guard it from robbery, but to show the distinction between instinct and reason, if you put rocks and sticks into it instead of beans and beefsteak he will carry it to the cook all the same.

We all know that the shepherd dog knows his master's sheep, and knows if one is missing, and he will protect them with his own life. Is not this "knowledge of property?"

Dogs are very much attached to their homes and will make journeys of hundreds of miles to return to them, and by ways that they never traveled before. Though carried on the cars 300 miles they will return, but not by the railway track.

SOME REMARKABLE CASES OF INTELLIGENCE IN ANIMALS.

Mr. Locke, in his essay on the Human Understanding, gives the case of a parrot owned by a Spaniard in a seaport town in South America, who said to her master, "What are all these officers doing here?" The company was startled, and some one replied, "and what are you doing

here?" The parrot said, "I mind chickens," and at once began to cluck like a hen.

A gentleman was once driving into the country and his horse suddenly stopped at a blacksmith shop; his master said, "What is the matter with you, Tom?" and got for answer the uplifted hind foot, a sudden shake and the rattle of a loose shoe.

We had a parrot who, when he stole preserves and heard my mother's footstep on the stairway, would fly to the top of the bed post and begin to cry out with fear before accused of the theft. He was fond of musical sounds, and would take small pebbles, put them into a saucer and toss them up to hear them jingle.

I have a cat that has been in the family for eight or nine years, the only cat I ever fancied. She has three methods of getting into my chamber in the morning, and she always pursues them in regular order, the simplest first, and the most complex last. First, to cry at the door, then to scratch; second, to go back three or four feet and throw herself violently against the door. When this fails she gets out on the front porch where, by opening the slats to the blinds, she can see me in bed, and then she rattles or scratches the blinds to attract my attention. Here is reason, beyond question. I was at a loss at one time to account for her second method, but I think she got this idea from seeing the children chasing each other from room to room in play, and when those inside were holding the door, those without would run against it and push with all their might to get in. The third and last way to enter was due to the fact that the cat had often in summertime, when my window was open, been in the habit of entering my room through it. When a child is badly hurt and cries aloud this cat will run with the other children and get up into the lap of the injured child in apparent sympathy.

Dogs know when they do well and when they do ill; they like praise and dislike censure.

We have all seen the wonderful effects of careful training in some animals: this knowledge is secured by imitation. A child of one year can make great progress in this line.

It presupposes a very little knowledge.

OPINION OF SOME DIVINES OF THE LAST CENTURY.

The idea that the lower animals will be resurrected, as was insisted by many distinguished divines of the last century, is not tenable. We may fairly suppose that animals possess no power of introspection, retrospection, or antispection, if I may coin a word, or anticipation of the future. I use these expressions in their broadest sense. This knowledge would require "abstraction," a power not belonging to animals, as is generally agreed.

IDENTITY.

Can we suppose that the animal has any idea

of identity? I think not. Identity is arrived at by a review of the past, a tracing of one's history backwards link by link, to childhood, and a capacity to join these links, and show their congruity resulting in what we call consciousness. We cannot concede this power to brutes.

INSANITY IN ANIMALS.

Another new question, perhaps, is this: can the animal become insane? I think not, as insanity is the breaking of the chain of identity. If the animal does not have it of course he cannot break it. When broken in man we say he has "lost his mind." He has broken the link that binds him to the past. He has lost his identity and by consequence his consciousness. I use this word in its broadest sense.

Rabies in the animal bitten by a dog is not, pathologically, insanity. It is a blood poison leading always and speedily to death; in the dog himself it is a specific disease not at all analogous to insanity in man.

It is singular how opposed some people are to granting even limited reason to animals. But Job allowed them this in his day. He says "God deprived the ostrich of knowledge and understanding, and hence she foolishly laid her eggs in the sand and the foot of man and beast will crush them." The knowledge of animals to that of man is as zero. It is like the knowledge of A B C to that of the English language. No animal could ever understand one of the simplest axioms in mathematics, which might be said to be below the plane of reason, as they do not need reason for their acceptance. Training of the most sagacious animals through ten generations could not bring one of them up to this point. They have no inventive power outside of their own necessities. None could be made to comprehend the principles of the simplest art or science. The dog and horse of a thousand years ago are the dog and horse of to-day.

This knowledge is stationary; when brought in contrast with man's it seems as nothing; a drop of water to the ocean, a grain of sand to the endless beach, its elements are memory and imitation. There is one exception, and that is their knowledge of places. This is marvelous, as before said, but without this special endowment the whole race would perish with the first generation. Here is wisdom and goodness!

The dog, the horse and the cow are man's three best friends. The dog is the farmer's "night watchman." No bad treatment or change in fortune in his master alienates his affection. A medical friend once said to me, in this connection, I have more faith in my dog than in many men. What in these days of "condensed milk" would the neglected infant do without the cow? The goat's milk is no substitute, as we all know. While fashionable women are turning their backs

upon their own offspring, willing that they should perish rather than forego the theatre and ball room, the faithful cow is the only recourse. She saves thousands of human lives annually. The absence of milk for one day in London would bring more distress than the failure of Baring & Bro., and a half dozen other big houses.

The horse, "whose neck is clothed with thunder," who mocketh at fear and "smelleth the battle afar off, the thunder of the captains and the shouting," is guided by the whistling lad in the fresh furrow and the little child leads him to the watering.

Having, as we think, defined the limits of animal intelligence, let us endeavor to get an idea of man's mental capacities, and see if there is one or many links between the two. For this purpose I propose a new method of analyzing the human mind or classifying its capacities, or, if you please, giving its dietetics, the food on which it feeds, in which ample place will be found for its powers of imagination, etc. For simplicity it may be regarded as a trinity, but not the trichotomy of the Egyptians and Greeks. The modern theory of Sir William Hamilton is far too complex. In proposing to be original I hope I show no want of respect for learned authority. Too much subserviency to authority blocks progress in all art and science as well as in philosophy. It is proposed in this paper to consider the mind, 1st. In its moral perceptions or its power of comprehending moral truths.

2nd. Its immoral perceptions or passions.

3rd. Its cosmotic powers or conceptions of the natural world, the Cosmos of Humboldt, including, if you please, all physical science. It is very natural that this last division of the subject, from its vastness, should have been most attractive to mankind. It was visible, tangible, always and everywhere. It could not escape us. The fool as well as the wise man had eyes and hands and must needs use them. But one of the Greek philosophers had the true idea when he said the greatest wisdom was, "Nothe se auton." (Know thyself.)

Moral philosophy is more important than natural philosophy or science. Man's happiness is more involved in this Greek aphorism than in all La Plaiçe's and Newton's discoveries.

The wonderful dome that we carry on our shoulders poised so delicately, is marvelous beyond description and the most marvelous and valuable endowment are its moral perceptions. In its study is involved man's highest happiness. A man must know very little of himself who is disposed to question this proposition. Not only is man's individual happiness involved in it, but the happiness of the entire race.

It is a curious fact that there is no necessary connection between morals or goodness, and intelligence. A man may be a Bacon in learning,

and a debauchee in practice, or a Joseph in purity and entirely ignorant of even the simplest rudiments of philosophy.

Attempts were made by the Greeks, especially, to define these moral principles, and direct them into right channels, but they always remind me of men groping in the dark, or of one looking through a low-power microscope in search of germs, to find only a mass of debris; the closer he looks the greater seems the confusion. How vast is the field of morals! It includes the study of the laws of truth, justice, love, faith and all their various products, as mercy, meekness, patience, gentleness, forbearance, honesty, etc. How beautiful is the search for truth in a great criminal case: Astute lawyers, sheriffs and detectives follow a small thread, attenuated as a spider's web, through fens and fogs, over valleys and mountains, over seas and oceans, in the heat of summer and the cold of winter, holding on to this delicate thread till at last it becomes a cord, a chain that binds the strong man in prison walls.

What a golden shield justice throws over innocence when attacked by lion-hearted tyranny, or the viper tongue of slander! With what a steady hand does she hold the scales. What a deaf ear she turns to flattery and fame. She heareth the cry of the prisoner and breaks his bands asunder. The cry of the troubled widow, and gives "beauty for ashes, the oil of joy for mourning."

But what shall we say of love? Though I should "speak with all the tongues of men and angels," I could not describe her. The faith that removes mountains is not equal to her; the benevolence (so-called) that would give all its goods to feed the poor, is not her equal. In honor she "preferreth another, she hopeth all things, endureth all things," seeketh not her own, thinketh no evil, rejoiceth in the truth. What more shall we say of her. Love would open every jail and penitentiary, dry every tear, clothe every ragged child, heal every broken heart.

But what shall we say of faith? Faith in your doctrines, faith in your friends, faith in your God. It binds men together with hooks of steel. It has laid delicate women calmly upon the block, and tied them joyfully to the burning stake. But what says the great philosopher, Paul, of it. "Through faith we understand the worlds were framed by the word of God." "Without faith it is impossible to please God." "Faith subdues kingdoms, stops the mouths of lions, quenches the violence of fire." Men out of weakness are made strong, wax valiant in fight, and turn to flight the army of the aliens. The highest compliment ever paid to man by great authority was to men of great faith, of whom it was said, "The world was not worthy." There can be no peace without it, no commercial progress, no domestic happiness, society would go to pieces without it and chaos reign supreme; what need, then, for

the exhortation, "have faith in man and have faith in God." The man who has no faith in the former has no faith in the latter. This is not generally admitted, but can be logically proved. In morals, as in nature, there are grand massive truths as well as microscopic beauties.

Even the Christian world has little idea to what delicate refinement these great principles, Faith, Justice, Love, Truth, the four corner stones of God's great temple, can attain. They can be seen in the look, the tear drop, the tender tone, the sigh, in the infant's tottering step, and the widow's dying smile. They are like four great rainbows, spanning the Heavens, and beckoning us to the skies. And, better still, they are progressive, so that by steady and persistent effort we may attain the dream of the poet and have

"A heart in every thought renewed
And full of love divine,
Perfect, and right, and pure, and good,
A copy, Lord, of thine."

It is pleasant—to change the figure—to contemplate the final triumph of these four sturdy warriors, of God's good Providence, as they march forward to the conquest of the world. Do we not feel the conflict within us to-day in every man, the "war among the members?" Volumes have been and many more volumes will be written on this branch of my subject, but I must turn to the consideration of the second part, to-wit: the immoral perceptions and passions of the mind. Alas! what a foul nest of foul birds! what a den of fierce wild beasts! The great apostle of the Gentiles sums them up thus; adultery, fornication, uncleanness, lasciviousness, idolatry, witchcraft, hatred, variances, emulations, wrath, strife, seditions, heresies, envyings, drunkenness, revellings and such like. Seventeen indictments. Of felony, alas! how many misdemeanors! man's charges against his brother, aye, against himself, marvellous honesty! There may be no witchcraft in these days, but there are watered-stocks, futures, and trusts worse than witchcraft.

Suppose it were heralded over the land to-morrow that the people of Paris had become so debauched that no boy under fourteen years could venture from home at night except with a gendarme by his side, without danger of assassination. What horror, what indignation, would fill every man's breast, and yet it has become so well known that it causes no surprise, even in this age of boasted Christian civilization, that no girl, however pure and spotless, can go out at night alone, without danger of an assault, everywhere regarded in the Bible as worse than murder. It will be noticed that of the seventeen felonies above enumerated, this crime stands at the head of the list, while murder is put near the foot. This classification is quite usual in the Bible. He who knew the human heart better

than we ourselves, said, "Let him that is without sin cast the first stone."

Unfortunately for man, he cannot sin without consent, and hence he is responsible. It has been proven that some of the bad pleasures of man cannot be enjoyed without intelligent consent. Animals cannot sin because they have no moral nature, and consequently cannot be immoral, in any sense. The shame sometimes exhibited arises from fear of remembered punishment by their masters. Here there is a bridgeless chasm between man and brute. These human passions are said to be instinct, but while that is true in one sense, yet, as before said, they are intelligent and under the control of a healthy will, and are generally exercised, strange to say, under the protest of conscience, when enlightened. How is it possible to explain this strange incongruity? It finds no analogy in the war among the elements in chemistry. Where is the philosopher who will give us the solution?

But I must hasten on to the third proposition, to-wit: The cosmotic perception, or the mathematics of the mind and of nature's laws. While the study of nature has been, as said before, always more attractive than the study of morals, it is nevertheless not so abstract. Nature is tangible, visible, some of her laws are written upon the stones and others in the stars. We find metrical motions in the one and methodical "measures" in the other. To man is given the measure of all the spheres, in the *circle*, without this there would be no astronomy. The "span" is the unit of measure, the parted fingers the idea of "dividers" and angles, in mathematics. Without the eye or without the hand there would be no art, refined or gross, but without either, what worlds of beauty were built by Milton. We degrade ourselves when we exalt the natural above the moral. Nature gives no help to morals, virtue seems not a child of earth.

But let me hasten to the main object I have in view, to-wit, the contrast between animal and human intelligence. There can really be no comparison. It is a matter of contrasts of antithesis. In the animal, intelligence is limited; in man unlimited.

In the animal, intelligence is X; in man the great complex problem of mathematics. In the animal, intelligence is a drop; in man the ocean. In the animal it is a single thread; in man the bolt of cloth. In the animal it is only one stone; in man the great edifice. In the animal there is no identity; in man perfect identity. In the animal no morality; in man it is the highest quality. In the animal satisfaction with the world; in man dissatisfaction. In the animal congruity; in the man incongruity. In the animal no progression; in man endless progression. In the animal insanity is impossible; in man quite common. We are surprised at the tricks of animals and infants

simply because we did not expect any intelligence.

To say, therefore, with Darwin, that there is one link or two "missing links" between animal and human intelligence, is to speak without reason.

Man's highest qualities or perceptions have no existence even in embryo in animals. You cannot weld wood and iron, the chain must be of the same material. A few changes in the anatomy of the chimpanzee would make him a man in form, but what changes in his capacities, would make him man's equal in intellect. One is the intelligent master, the other the ignorant slave.

A block of wood may be of the same shape as a block of marble; a piece of glass, of the form of a diamond; the form of an object has nothing to do with its quality or character.

Other animals besides the chimpanzee have similar organs to those of men; this is true of birds also; the pattern may be the same, but the material without one item of resemblance; one might be of brocade, the other of paper.

Linnaeus' dogma, "*Natura non facit saltus*," may be true of the vegetable kingdom, but finds one notable exception in the animal kingdom. I do not think that it will ever be proved that any fortuitous concurrence of atoms, or arrangement of cells, can produce moral intelligence.

It is not proposed in this paper to discuss its origin, but I would respectfully call attention to the Psalmist's reasonable answers to his own three pertinent questions, to-wit: He that formeth the eye, shall he not see? He that planteth the ear, shall not he hear? He that *taught man knowledge*, shall not he know?

But to conclude: I have endeavored to show that animal intelligence is zero; to multiply it by itself you have zero.

I have also said it is strictly limited, and if multiplied by itself the result is limited. But the powers of the human mind are unlimited; not one, not a thousand links can bridge the chasm between the intelligence of animals and the intelligence of man.

TWO INTERESTING CASES OF FORCED RESPIRATION.

Read in the Section of Practice of Medicine and Physiology, at the Forty-second Annual Meeting of the American Medical Association, held at Washington, D. C., May 5-8, 1891.

BY GEORGE E. FELL, M.D.,
OF BUFFALO, N. Y.

Sunday morning, March 1, at 3:20 A.M., I was called to the residence of Dr. Harrington, on Franklin St., and there found a young lady who had taken a large dose of morphine. At 3 A.M., Mr. Harrington, Sr., had noticed stertorous breathing. He arose, looked at the patient, but concluded that it was nothing more than a very

deep slumber. The condition continuing, however, he called Dr. Harrington, who examined the patient, finding her in a comatose condition, cyanotic; pupils markedly contracted; and a bottle of morphia upon the table. She had written two or three letters which clearly indicated the cause of the trouble.

I immediately proceeded to forced respiration with the face-mask, which resulted in overcoming the cyanosis and producing an improvement in the heart action. We continued forced respiration with the face-mask until 6:30 A.M., when it was observed that the cyanosis was again increasing, and the condition of the patient growing more and more desperate. No evidences of consciousness were present. By hollowing into the ear, ocular reflexes were noticed in a contracting of the orbicularis muscles. There appeared to be no hope of recovery at this time.

With Dr. Harrington's assistance we made tracheotomy, and inserted the tracheotomy tube, as arranged for forced respiration, into the trachea. Connection was then made with the apparatus, and forced respiration kept up. The improvement on the employment of forced respiration per tracheotomy, over that produced by the face-mask, was evident. The chest movements were greater, and the results were more satisfactory in many respects. However, of so serious a nature was the condition of the patient at this time that not one present expected other than a fatal termination. No pulse existed at either wrist; auscultation could detect no heart movement, either on the part of Dr. Harrington, myself, or the students present. Two conditions, however, appeared to indicate that life was not extinct. The pupils continued contracted, and cyanosis did not supervene. The glassy stare of the eyes was present, and outside of the two favorable indications mentioned, it appeared that death could not be far off. At this point Dr. Harrington's father made the remark that if this young lady was made to live, it would be indeed a "miracle." However, I kept up the forced respiration, saying that I would do so a little while longer, "just for the fun of it." In a short time auscultation on the part of Dr. Harrington gave us the satisfactory information that the heart was beating. In the course of a few hours these reflexes were more and more marked, and consciousness supervened. Forced respiration was continued through the forenoon, and until quite late in the afternoon, making some twelve to fourteen hours of continual forced respiration before the patient could be allowed to breathe for herself.

She has made a good recovery.

In this case artificial respiration would at no time have been of any avail to the patient.

Oxygen gas used.

Sunday, March 15, at 11:30 A.M., I was called