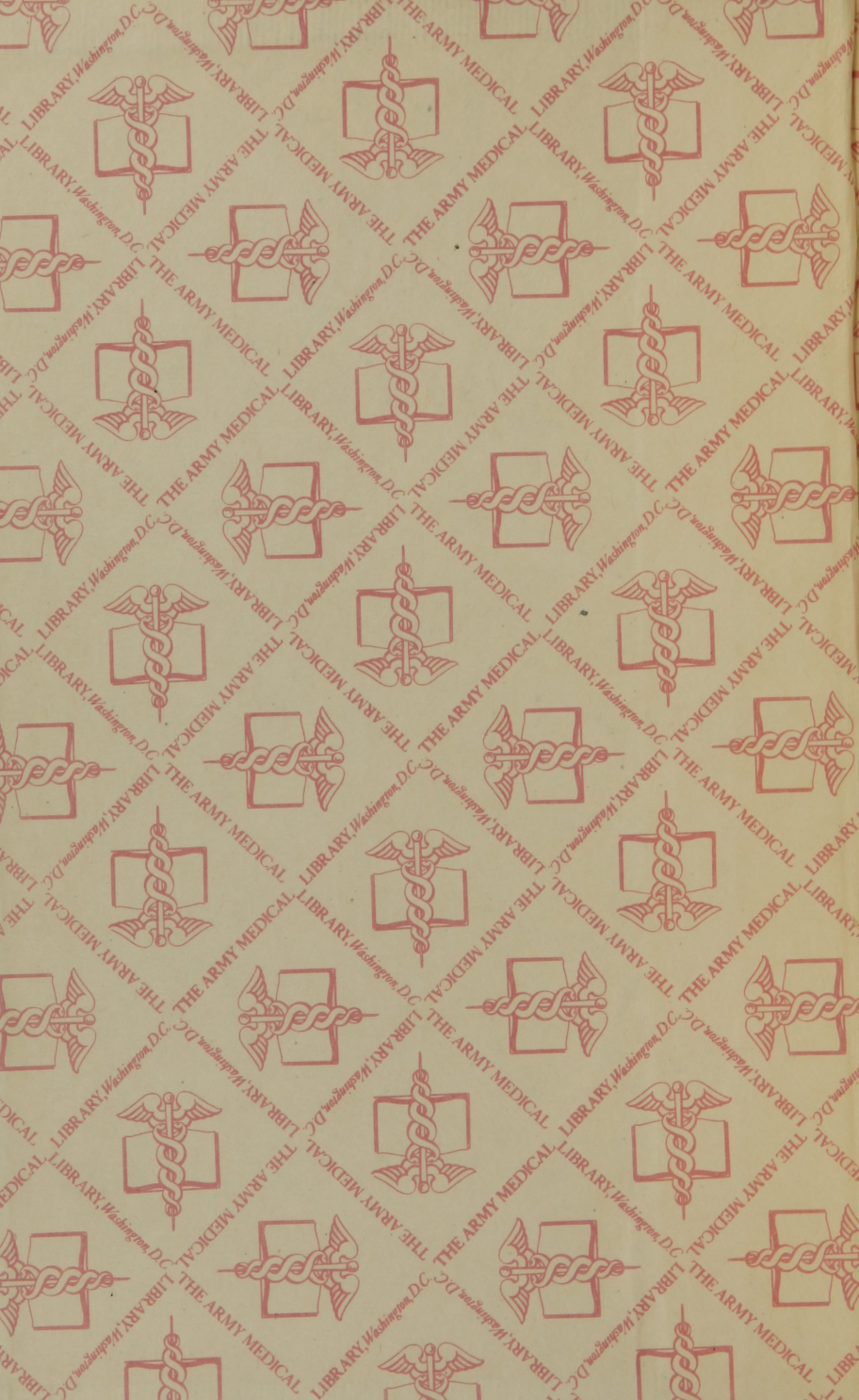
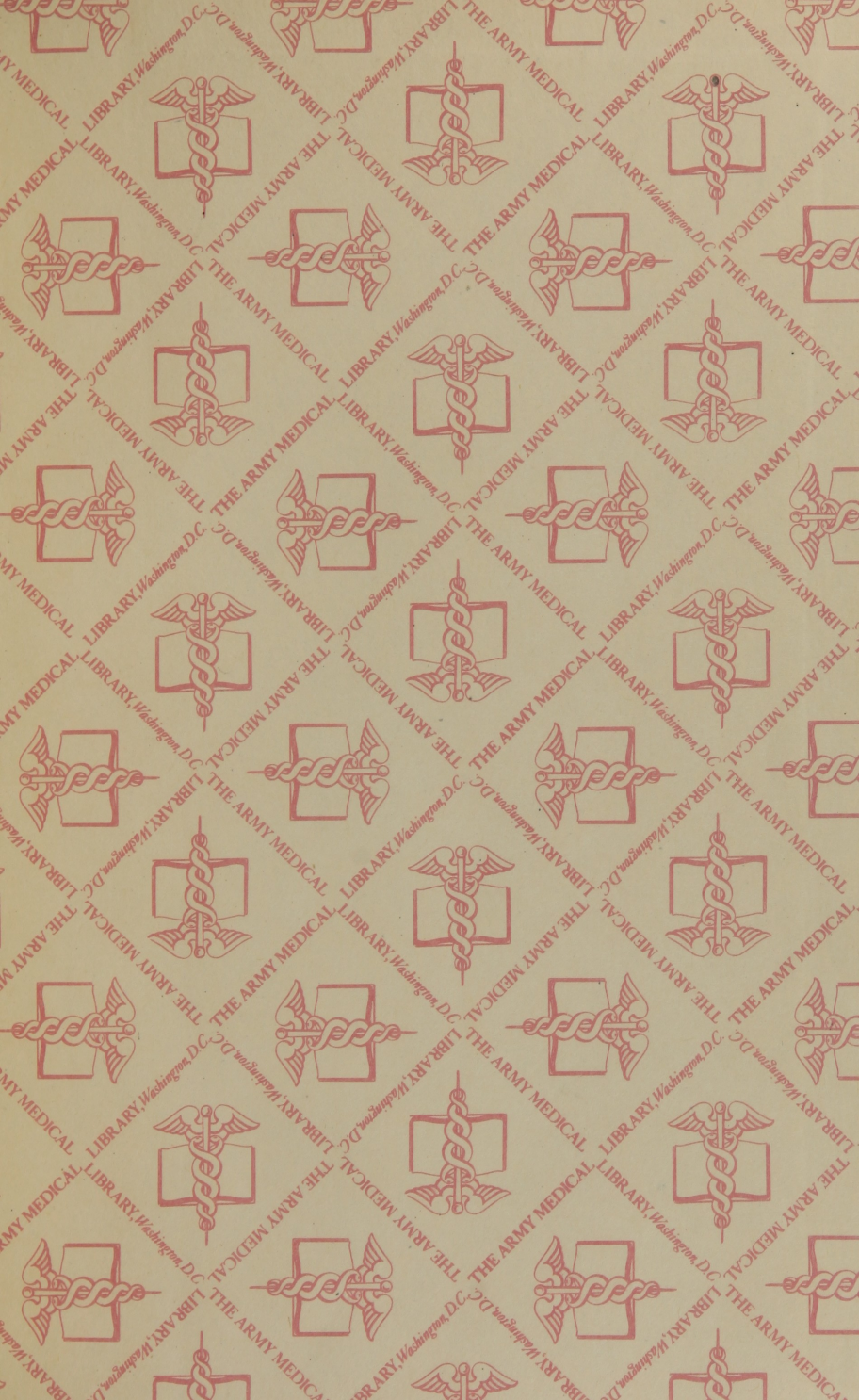




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1859





Drake, J. S.

Presented by
E. Sterling

69

DRAKE'S

PATENT ARTIFICIAL

LEGS, HANDS, ARMS, &c.



THESE LIMBS ARE MADE ON AN ENTIRELY NEW PRINCIPLE,

AND HAVE RECEIVED

MEDALS AND DIPLOMAS

AT

EVERY EXHIBITION WHERE THEY HAVE BEEN EXHIBITED,

IN COMPETITION WITH ALL OTHERS.

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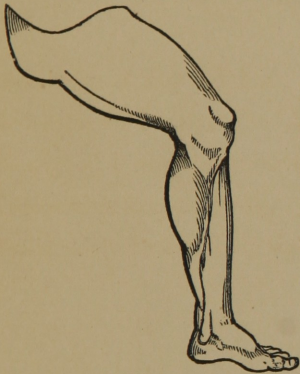
1859

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DESCRIPTION OF LEG AND ARM.



THE LEG differs from all others both in construction and material; it is light, strong and durable; and in its action and external appearance, like the natural limb. There is no wood in it. Its flexibility and lightness, with the new mode of adapting to the stump, make it perfectly easy to the wearer; and its superiority has been admitted by the most eminent Surgeons. It is in use where both legs are amputated at the thigh, and for those that have but a hip joint. These Limbs are adapted to the condition of all cases of both sexes, and are successful with the shortest and most imperfect stump, and can be immediately used. It has not that disagreeable thumping noise which is generally noticed in other artificial limbs. It is sufficiently ventilated. The attachment is not burdensome, and the limb is lighter than any other, needs less attention to keep it in order. The material of these limbs consists of whalebone, steel, India rubber, and leather; it being better for ease and durability than those

constructed of wood. There are no cords to get out of order; nor is paint used, but it is covered with a delicate skin.

The mode of adapting these limbs is entirely different from all others, especially where the leg is amputated below the knee; not depending on loose flesh for a bearance. It is fitted by a cast taken from the stump, which gives a bearance on the solid parts, and allows every motion and strength to the natural joints. See *Fig. 4*, page 26.

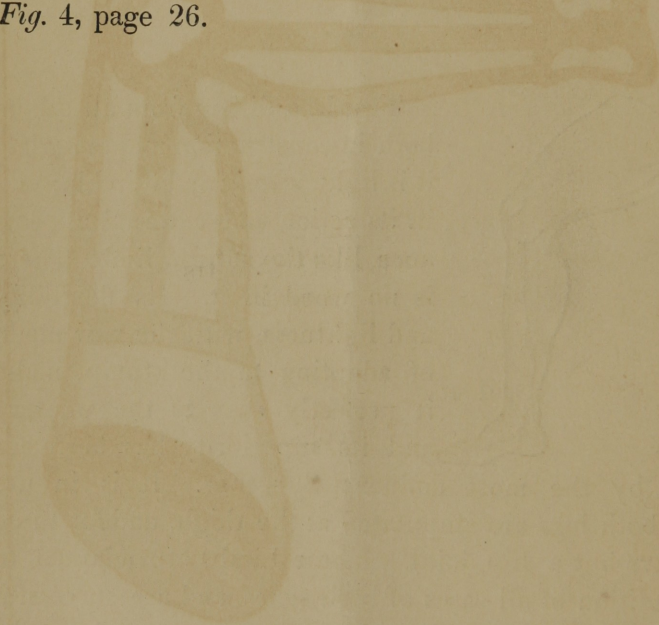


Fig. 1.

SKELETON OF THE ARTIFICIAL LEG.

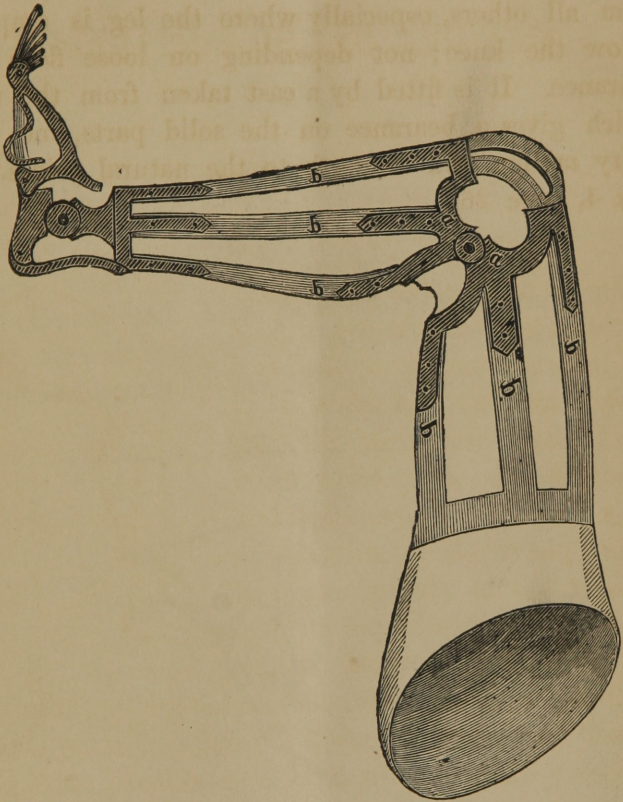
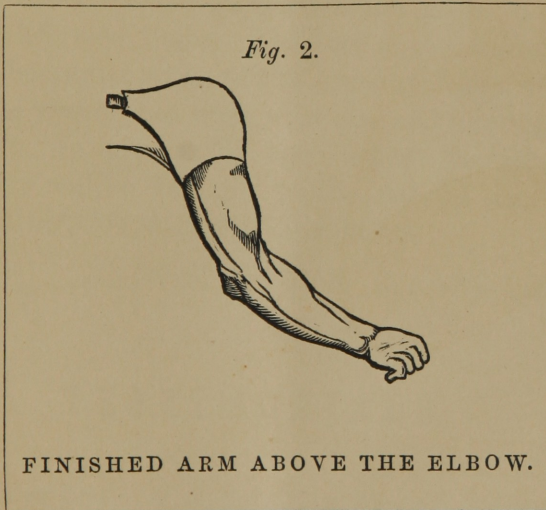


Fig. 1 is a view of the Leg with the exterior covering removed to show the skeleton parts. *b.b.b.b.* is the whalebone attached to the metallic frame of the Foot and Knee. (*a.a.*) See *Fig. 3*, Leg covered, page 20.

DRAKE'S PATENT ARTIFICIAL ARM AND HAND.

The HAND and ARM have every joint and motion of the natural limb, and is so constructed as to lock each joint separately on all the fingers, so as to be



useful in many of the functions of the living limb, such as using the pen, or to lift the weight of fifty pounds or

more, to use a knife or fork, and in many occupations for procuring a livelihood. It is in use by persons with both hands amputated. These limbs are made to suit individual cases, and are a more perfect imitation of nature, as well as more perfect in action, than any hitherto offered in this or any other country. When a thumb or any part of the hand has been amputated, the person can have artificial members which will be of practical value.

APPARATUS FOR THE CURE
OF
DEFORMED LIMBS.

My apparatus for paralyzed and other deformed limbs, are constructed on an entirely new principle, so as to have a more natural appearance, as well as being a greater support to the wearer, than the old arrangement for such cases. These supporters are made to suit all kinds of deformed limbs. They are so constructed as to hide the deformity, with all the apparatus out of sight, so that the wearer can walk with ease and naturalness of action; and in almost all cases where the patient is young, they will be brought to the natural use of the limbs, and the deformity will be removed.

JOHN S. DRAKE, SURGEON ARTIST.

TESTIMONIALS.

From Winslow Lewis, M.D., Consulting Surgeon of the Massachusetts General Hospital.

Boston, Oct. 15, 1857.

From the skill and ingenuity shown by Mr. Drake in the construction of artificial limbs, I was induced to send him several patients affected with the loss of action from paralysis. His success has been very great

in restoring motion by his mechanical appliances in these cases, and I would recommend to those thus afflicted to give Mr. Drake's apparatus a trial.

WINSLOW LEWIS, M. D.

Providence, R. I., Oct. 25, 1858.

Having been very much benefited by wearing a pair of supports made by Dr. Drake, I very cheerfully recommend any one who may be suffering from partial paralysis of the limbs to him, feeling assured that, by his great ingenuity, he would invent something for their relief.

M. A. GLADDING.

Boston, July 18th, 1859.

Dr. J. S. Drake—Dear Sir: I am most reluctant to have my name appear in print, but you have rendered me such essential professional service that I do not feel at liberty to withhold it. My story is briefly told. At seven years of age, during a sudden and severe sickness, my left leg, from a little above the knee downward to the foot, became perfectly paralyzed. I suffered much, and was unable to walk even a short distance without artificial support. The most skilful physicians and surgeons were consulted from time to time, but all to little purpose. Everything in turn was tried; many new inventions to give support to the limb successively adopted, but all were heavy and clumsy, and *failed* to accomplish the end in view. During the eight years of these experiments my limb became constantly smaller and weaker; I could hardly without the utmost fatigue walk ten rods. At this stage of my infirmity *amputation* was seriously talked of, and a consultation had for that purpose with an eminent surgeon, who thoroughly examined my case, and directed me to your establishment. It is now two years since I was placed under your care; you have completed and furnished me with an excellent self-adjusting support, by which I can take much exercise, and keep my body in an easy and natural position. My limb has nearly recovered its proper size, and is daily growing stronger. I can now walk with a steady and regular step nearly two miles at a time without resting. Respectfully yours,

HELEN CLARK.

REPORTS OF DISTINGUISHED SCIENTIFIC ASSOCIATIONS.

From the Massachusetts Charitable Mechanic Association
Exhibition, Boston, Mass., 1856.

JOHN S. DRAKE, Boston. — *Artificial Legs, Hands, and Arms.*—
The legs are very ingeniously constructed, with a variety of springs,
&c., which seem to fit them for actual and convenient use. We are
assured, by those who wear them, that they are comfortably applied, and
easily worn. They are remarkably light, and substantial.

Mr. Palmer must look to his laurels. The unfortunate users of such
things will have the benefit of the efforts and improvements which compe-
tition always insures.

The Artificial Hand and Arm, invented and constructed by Mr. Drake,
are remarkable specimens of ingenuity, applied to supply a loss—that
of a hand and arm—undoubtedly greater sometimes than that of a leg.
He has succeeded—as far as we can judge, by examination of specimens
not in actual use—in a manner not approached by any other artificer.
We are told, upon good authority, that a person who had the loss of
both hands supplied in this way, is able to hold a pen, write, handle knife
and fork with proper activity, put on and take off a hat, &c., &c. We
hope that, at a future time, the inventor will be able, by exhibition of
these arms and hands in actual service, to demonstrate his claim to the
highest award of the Association.

To Mr. Drake's Artificial Legs, Hands and Arms, we recommend a
SILVER MEDAL.

HENRY G. CLARK, M. D.,
GEORGE BARTLETT, M. D., } Judges.
GEORGE W. GAY, M. D., }

From the National Exhibition of the Metropolitan Mechanic Institute, at Washington, D. C., 1857.

Drake's Patent Arms and Hands.—The machinery is complete and ingenious, exhibiting much mechanical skill. The motions of all the joints of arm, hand, and fingers are perfect, securing the power of prehension, and enabling the wearer to perform many of the most useful functions of the natural limb. We cheerfully award to this ingenious and useful piece of mechanism our highest commendation. SILVER MEDAL.

ALEX. Y. P. GARNETT, M. D.,
S. C. SMOOT, M. D.,
J. HALL MOORE, M. D., } Judges.

From the Mechanic Association.—Exhibition held at Lowell, Mass., 1857,

JOHN S. DRAKE'S *Artificial Arms and Hands* are exceedingly ingenious, show a good degree of anatomical knowledge, and are well calculated to enable the wearer to perform, with great ease and perfection, almost all the movements of the natural limb, even those of the minutest articulations. For so successful an application of the inventor's ingenuity, we advise the award of a SILVER MEDAL.

J. C. DALTON, M. D.,
N. ALLEN, M. D.,
J. SPALDING, M. D.,
and others. } Judges.

From the Maryland Institute—Exhibition held at Baltimore, 1857.

DRAKE'S PATENT ARTIFICIAL LIMBS.—The leg appears to be a very ingenious piece of work, offering, with less weight, more strength and durability than others with which we are acquainted. Its motions appear easy, resembling those of the natural limb. The elastic clothing of the foot prevents the disagreeable thumping; and the structure being made of steel, is not attended with the sonorousness of those constructed of wood.

The arm and hand is certainly a most admirable device, and must be much more useful than the old arrangements of hooks or a plain hand, without grasping power.

The fingers being jointed, and held in place by latched movements, will clasp firmly almost any article required to be held, and a simple touch of the releasing knob disengages the fingers, instantly loosening the hold. We consider this a highly meritorious article.

For John S. Drake, Boston, Artificial Limbs, the Committee award a GOLD MEDAL.

WILLIAM H. STINSON, M. D., }
 C. A. HARRIS, M. D., } Judges.
 SAMUEL JACKSON, M. D., }

**The South Carolina Institute,
 1857,**

Awards to John S. Drake, Boston, Mass., for Drake's Patent Artificial Arms and Legs, this SILVER MEDAL and DIPLOMA.

The Committee on Surgical Instruments report, that they have examined the artificial limbs, presented for their inspection by John S. Drake, with unqualified admiration for the mechanical skill and ingenuity displayed in their construction, as well as the science so perfectly applied to the relief of helpless, suffering humanity. They are a close and beautiful imitation of nature's own handiwork, combining utility with lightness and neatness.

Given under our hand, in the City of Charleston, South Carolina, in the year of our Lord, one thousand eight hundred and fifty-seven.

WM. M. LAWTON, President.

WILMOT G. DE SAUSSURE, Secretary.

First Premium.

The Maine State Agricultural Society awards this DIPLOMA to John S. Drake, Boston, for his Patent Artificial Leg, exhibited by him in Portland, at the Exhibition and Fair of 1856.

SAMUEL BUTMAN, President.

E. HOLMES, Secretary.

**United States of America Association for the Exhibition of the
Industry of all Nations.**

The Association for the Exhibition of the Industry of All Nations,
awards John S. Drake, New York City, a MEDAL and DIPLOMA for an Arti-
ficial Leg.

THEODORE SEDGWICK, President.
J. RENWICK, Chairman.

First Premium.

The Maine State Agricultural Society awards this DIPLOMA to John S.
Drake, Boston, for his Patent Artificial Arm and Hand, exhibited by him
in Portland, at the Exhibition and Fair of 1856.

SAMUEL BUTMAN, President.
E. HOLMES, Secretary.

TESTIMONIALS FROM SURGEONS.

From Winslow Lewis, M.D., Consulting Surgeon of the Massachusetts General Hospital.

Having seen several artificial limbs, made by Mr. John S. Drake, I can recommend them, as equal, if not superior, to any yet manufactured, though well acquainted with the mechanism of the very excellent ones made in this country and in Europe. Still, I do not hesitate to give the above as my conviction of the merits of Mr. Drake's very ingenious invention.

WINSLOW LEWIS, M. D.

From J. Mason Warren, M.D., one of the Surgeons of the Massachusetts General Hospital.

Boston, 1859.

Having seen one or two patients with artificial legs constructed by Mr. Drake, also, a patient with an artificial arm, and one with a foot, I have been much pleased with the ingenuity displayed in their contrivance, and their adaptation to use.

J. MASON WARREN.

From Geo. H. Gay, M.D., one of the Surgeons of the Massachusetts General Hospital.

Boston, June, 1859.

After questioning different persons, who have tried upon themselves, for a longer or shorter period, an artificial limb, or a portion of one, made by Mr. John S. Drake, I take pleasure in speaking of their expressed satisfaction and benefit. Their reports coincided that in some of the unfavorable cases the new limb was easy in its action to the wearer in a very

few days, was not fatiguing from its weight, and that at night no greater weariness was experienced from a full day's labor, where there was constant standing upon the limb, than where both limbs were perfect.

GEO. H. GAY.

From Henry G. Clark, M. D., one of the Surgeons of the Massachusetts General Hospital.

4 Pemberton Square, Boston, May 23rd, 1859.

I have seen and examined the various inventions of Mr. Drake to relieve surgical deformities. They are very ingeniously constructed, well made, and adapted to accomplish the purpose for which they are designed.

HENRY G. CLARK, M. D.

From R. D. Mussey, M. D., late Professor of Surgery, Cincinnati, Ohio.

Boston, Oct. 6, 1857.

I take pleasure in saying, that I regard Mr. Drake's artificial limbs as decidedly superior to any thing of the kind I have yet seen. An artificial hand, recently furnished for a lady, at my suggestion, operates most satisfactorily.

R. D. MUSSEY, M. D.

From J. W. Ney, M. D., of Moundsville, Va.

Boston, July 16, 1857.

I this day witnessed the application of Mr. John S. Drake's artificial hands, as constructed for Miss H. R. McLean, of Virginia. I am satisfied that it surpasses anything of the kind now known in America.

J. W. NEY, M. D.

From F. A. Lambert, M.D., New York.

April 16, 1859.

I have examined an artificial leg made by John S. Drake, of Boston, and consider it admirably fitted for practical use. I should consider it

easily managed by the patient, as convenient and comfortable to the amputated limb, as mechanical skill could devise. I can cheerfully recommend it to all who need a limb, as one which will give them satisfaction in every respect.

F. A. LAMBERT, M. D.

Boston, June 2d, 1859.

I have very carefully examined and had fitted to several patients where I have performed amputation, Mr. John S. Drake's artificial leg, and I think it far superior to any other I have seen in use. I have examined his artificial arms, and think them superior to any I have seen in use, but have not had any applied to patients in my practice.

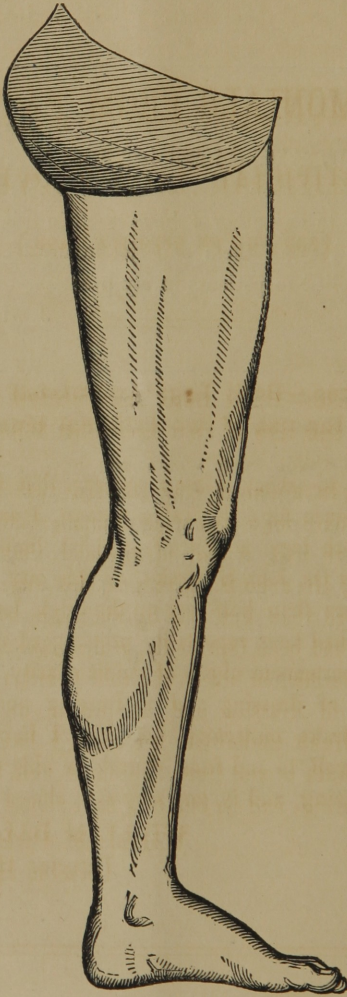
J. H. YORK, M. D.

Boston, Sept. 21, 1857.

I have seen the artificial arm which you have recently made for my brother-in-law. It is well fitted, and exceeds any thing of the kind I ever saw. The joints of the thumb and fingers seem to approximate to nature in their action. The great difficulty, which was in the shortness of the stump, seems to be overcome, and I have no doubt of its utility and endurance. To him it will be a great assistance and blessing.

O. S. SANDERSON, M. D.

Fig. 3.



FINISHED LEG, FOR ABOVE THE KNEE.

TESTIMONIALS FROM PATIENTS

WEARING ARTIFICIAL LEGS ABOVE THE KNEE.

(SEE CUT ON OPPOSITE PAGE.)

Extraordinary Case.—Both Legs Amputated at the Thigh, requiring the use of two Artificial Knee-joints.

I hereby certify, to whom it may concern, that in October, 1856, I had occasion to procure for a deserving woman, Joanna Regan, who had been deprived of both legs, a pair of artificial limbs, which were most successfully made by Dr. John S. Drake, of this city. The natural limbs were amputated more than half way up the thigh, leaving a pair of mere stumps. Her case had been repeatedly pronounced irremediable, and she likely to become a permanent object of public charity, dependent on others for even the offices of dressing and undressing and being put to bed. Since Dr. J. S. Drake undertook her case, I have the satisfaction to state, that she can walk to and from church, is able to support herself by her own labor at sewing, and is, one may say, almost "as good as new."

WILLIAM DALL,

Director House of Industry.

Double Amputation.—Both at the Thighs.

Boston, October 25, 1858.

Dr. J. S. Drake—Dear Sir: With great satisfaction, I can say, I am able to walk about comfortably with the artificial limbs which you have made for me. I can sit all day without any uneasiness, can dress and

undress myself without assistance ; my health and strength have improved since I have worn them. I can walk some distance without fatigue, and up and down stairs ; can stand at the wash-tub several hours at a time, and also at the ironing-table. I thank God, that, through your means, I am released from the sad condition I was in for several years. I would not part with those limbs for any riches.

Yours respectfully,

JOANNA O. REGAN.

From Rev. P. Mason.

Boston, Oct. 25, 1858.

I hereby certify, that I have known Mrs. Regan to wear a pair of artificial limbs, manufactured by Dr. J. S. Drake, for nearly two years past. She is at present in my family ; can walk about the house, or in the street, apparently with ease. Her limbs were amputated, both at the thigh.

Thigh Amputation.

I have used one of Dr. Drake's Patent Limbs for some time past. My limb was amputated above the knee in December, 1856. Six months after, by the advice of my surgeon, I employed J. S. Drake to make an artificial leg. This limb is worn with perfect ease ; it occasions no soreness to the stump, and, in every way, has exceeded my expectation.

Boston, August 29, 1857.

S. WRIGHT.

Thigh Amputation.

Dr. J. S. Drake—Dear Sir : I am well pleased with the artificial leg you made me. I can walk a great deal better than I expected. I can walk without a stick. I can also ride on horseback, and walk up and

down stairs quite well. I think I could walk five miles without fatiguing me much. It does not hurt my stump at all.

Your friend and well wisher,

Pictou, N. S., Nov. 24, 1856.

W. BECK.

Thigh Amputation.

Boston, August 5, 1857.

I feel, in duty bound to J. S. Drake, to return him my heartfelt thanks for the benefit I enjoy from the use of his artificial leg. I would state to the public, and especially those who feel, as I have, the want of a proper substitute for the natural limb, that the comfort and benefit I receive from this limb are indeed manifold. I can kneel at prayer with the greatest ease, for which I am truly thankful to God. I can walk any distance without paining or hurting the stump at all.

JOSEPH N. FULLICK.

Thigh Amputation.

City Engineer's Office, 119½ Washington Street, }
Boston, March 14, 1857. }

I have used one of Drake's artificial legs about three months, and it having proved so perfectly satisfactory in every respect, even beyond my expectation, I feel myself bound to give this leg my unqualified approbation. My limb was amputated above the knee in the year 1850, leaving a stump about three inches in length. I can now, with the assistance of my new leg, walk a mile with ease without stopping to rest. The socket that receives the stump is so perfectly adapted to the body, and sits so easy, that I have found no difficulty, from the first time I put it on, in wearing it as long as I wished. The step is very natural, and without that thumping noise so common to wooden limbs. The joints are so solid,

yet perfectly elastic, that I can step as firmly on the artificial as on my natural leg. In every way, I think the legs made by Dr. J. S. Drake superior to any I have ever seen.

E. R. BROWN, Civil Engineer.

Boston, February, 1859.

Since writing the above, I have constantly used my artificial leg, and have become so accustomed to it, that I hardly realize the loss of my natural limb. I would not, on any account, be obliged to discontinue using it, even for a single day. I have recently had it examined, and find the limb in every respect as good as when I first put it on; thus showing it to be made of the most durable materials. I walk two miles each day with comfort and ease, the socket being made of an elastic substance, not chafing my stump at all, as I was told that it would, before I used this leg, by those that had worn other limbs with sockets, of hard and inflexible wood. I still give Dr. J. S. Drake's artificial leg my most hearty approval.

E. R. BROWN.

From Miss Louisa R. Paine.

Abbot, Me., June 18th, 1859.

Mr. Drake—Dear Sir: I have the greatest pleasure in testifying my heartiest approval of the limb you made for me. I am not sorry that I have exchanged my useless limb and crutch for one of your limbs. I have used it only about five weeks, and go about the house and do all kinds of work, and walk as far as my strength will allow, without any inconvenience from the limb. I wear it all the time, and walk with the utmost ease. My health was so much impaired from the disease and suffering of my limb before amputation that I thought it would be useless for me to try, for I did not think I could get a limb that could go on; but my friends were very anxious for me to try, so, with little courage I applied to you, and got one that fills the place of my natural one much better than I could have anticipated; and it is with the greatest pleasure I record my testimony to the value of your artificial limbs, for I walk with so much ease

and comfort that it excites my gratitude inexpressibly for an invention which is rivalled only by nature. No one, except a person who has been similarly afflicted, can tell how we poor cripples rejoice over the fact that we can have our loss so well compensated by the ingenuity of man; and to all who are suffering from the loss of natural limbs, go to Dr. John S. Drake, and get a substitute that will fill the place of the natural one. My limb thus far has served me well, and I look forward with a pleasing hope into the future. Permit me to offer my sincere thanks for the beautiful and useful limb, and the sympathy shown me while I was with you having it fitted. With sentiments of the highest respect,

I remain yours gratefully,

LOUISA R. PAINE.

E. R. BROWN

From Miss Louisa R. Paine.

Albany, N. Y., June 18th, 1853.

My dear friend—I have the greatest pleasure in receiving your kind letter of the 10th inst. and in reply to inform you that I have forwarded my watch, ring and chain for one of your limbs. I have only about five weeks and to alter the house and do all kinds of work, and walk as far as my strength will allow, without any assistance from the limb. I wear it all the time, and walk with the same ease. My health was much improved from the disease and suffering of my limb before operation, and I thought it would be a good idea for me to try for I did not think I could get a limb that would go up, but my friends were very anxious for me to try, so with little hesitancy I applied to you and got one that fills the place of my natural one much better than I could have anticipated, and it is with the greatest pleasure I send my thanks to you for the value of your artificial limb for I walk with as much ease

Fig. 4.



FINISHED LEG BELOW THE KNEE.

TESTIMONIALS FROM PATIENTS

WEARING ARTIFICIAL LEGS BELOW THE KNEE.

(SEE CUT ON OPPOSITE PAGE.)

Leg Amputation.

East Abington, Nov. 3, 1857.

Dr. J. S. Drake—Sir: I now, according to promise, write to let you know how I like the artificial leg you made for me. I am happy to inform you that it is as well as I could wish. It is perfect; and so easy when I am standing or walking, that I almost forget that I wear an artificial leg at all. I stand to work about eleven hours per day with perfect ease. I have seen a good many substitutes for a leg, but have never seen any that is equal to yours. It is natural in movement, light, and convenient. I think, Sir, that all who are so unfortunate as to lose either limb had better call on you and have you set them on their legs again. I don't think they could get into any man's hands that will do any better for them than you can. Hoping you may be as successful with others as you have been with me,

I remain yours truly,

JOHN W. CAMERON.

Leg Amputation.

Dr. J. S. Drake—Dear Sir: I am very much pleased with the limb you made for me. It works to my entire satisfaction, and far better

than I anticipated. My leg has been amputated nearly six years. I first purchased one of the best wooden artificial legs. It was impossible to wear this leg all the time. I weigh 200 pounds; and had to make the compress so great above the knee, that the leg withered to its least possible size. There was little left but skin and bone, and most of the skin was worn from the stump. I consulted several surgeons, who told me I must not wear the compress any longer, and resume my crutches, when my limb would grow stronger. I was in despair. I am a machinist, but could not work at my trade any longer. Hearing of Drake's Artificial Legs, I consulted you, and concluded to have one made. My friends were in doubt, but their doubts are all removed; and I am sure the doubts of any one would be, if they could but know the pleasure this limb is to a poor cripple. There is no compress. The muscle has resumed its natural tone; there is not the least chafe; the socket is so perfectly adapted, that it sits as easy as a boot. I can now work ten hours a day, and stand all the time. The fifth day after I got it, I stood to work ten hours, and then, in the evening, I walked three miles. There is not one person in a hundred who would have the least idea that I wore an artificial leg. If any person doubts the above, or wishes further information, if they will call on me, at Buffum's Steam Mills, West Lynn, Mass., they can see me and my leg, and find plenty of persons who would be happy to state my case more fully than I have myself.

Yours truly,

West Lynn, Mass.

NOLAN R. LATHROP.

Leg Amputation.

Boston, Oct. 9, 1857.

Dr. J. S. Drake—Sir: You wish me to inform you how we like the leg you made for my wife. We have not had quite time enough to prove it yet; but my wife feels quite sure that the principle of your leg is far superior to those that take bearing above the knee. She finds it thus far more comfortable, especially in a sitting posture. She will, we think, walk well with it. I have no doubt, that her taking the bearing above the knee was very injurious to her general health. After a further trial of your limb, I think I shall be able to give you a more pleasing and more satisfactory letter.

Yours truly,

No. 2 Milk Street, Boston.

JAMES CARPENTER.

Boston, Jan. 23, 1858.

Dr. J. S. Drake—Sir: After a further trial of your artificial limb, made for my wife, I have the pleasure of informing you that it proves quite satisfactory. It surpasses any other limb she has ever had. She finds it much more comfortable in all respects, especially in riding and sitting. It is also much more lifelike in ascending and descending stairs. Since wearing your limb, her general health, as well as that of the limb, has much improved; this we think attributable in a great degree to the use of your limb.

Yours truly,

JAMES CARPENTER.

P. S.—You are at liberty to refer to me at all times.

Leg Amputation.

May 1, 1857.

J. S. Drake—Sir: In September, 1855, one of my legs was badly crushed on the railroad, and I was obliged to have it amputated about six inches above the heel. The next June I procured one of your artificial legs. It has done every thing for me but restore the lost limb. I walk without a cane. I can run, work, and do almost any thing else I could do with my natural limb. I would not exchange this leg for its weight in gold, if I could not get another like it. I would advise those who have met with a similar accident, to get Drake's Patent Leg as soon as the stump is sufficiently healed.

Yours truly,

EDWARD P. PAINE.

Mansfield, Mass.

Leg Amputation.

Boston, Mass., March 16, 1857.

Dr. J. S. Drake—Sir: I am much pleased with the leg you made me. I can travel around the city much better than I ever expected to do with a patent leg. My natural limb was lost in Hong-Kong. Ten months from the time I lost my limb I arrived in Boston, and procured one of

Drake's Patent Artificial Legs. I can now go on board of a ship and do duty, as before.

JOHN E. POWERS.

Leg Amputation.

Cambridgeport, Sept. 10, 1858.

Dr. J. S. Drake—Sir: Having had the misfortune to lose my right leg below the knee in stepping on the platform of the horse cars on my way to a fire, I was advised by some of my friends to try one of your artificial limbs, and am now, without the least hesitation, willing to say, that it was far beyond my anticipation. It was on the night of the 20th of December when I was hurt, and, in sixty days, with the help of one of your limbs, I was enabled to walk up stairs and street without the use of a cane or crutches, and since have been steady at work to my trade; and if any person should have any doubts, and be unfortunate enough to lose a limb in any way, I can, with the most assured confidence, recommend them to Dr. J. S. Drake, and shall always be happy to have any person call on me, and will give them all the information I can in regard to my ease.

HENRY M. BOSWORTH, Carpenter.

Foot Amputation.

Cambridgeport, August 28, 1857.

I have used one of Drake's Patent Artificial Feet for nearly three years, and will state, that many thousands of dollars would not purchase the same of me, if I could not get another one like it. I have worn it constantly, from early in the morning until late at night,—sometimes, at once, twenty hours in a day, in my store, and my business requires me to be almost constantly on my feet. It fits me comfortably, and is every thing I could ask for.

GEO. L. CADE.

Foot Amputation.

Dr. J. S. Drake—Sir: If my testimony, added to that already gathered for your circular, will be of any service to my fellow sufferers, I will

gladly furnish it. Before applying to you I made a thorough investigation of the merits of the different kinds of limbs, and the result of my research, aided by testimony of those then wearing the limbs, was the selection of yours from those of four different makers. Yours are not as heavy as those of other makers, and, besides having a more natural movement, the mechanism is less likely to get out of repair, and they can be worn with greater ease to the patient than any limbs I have examined. Mine operates perfectly; the movement is so natural that it is almost impossible for the keenest observer to detect which of my limbs is artificial. Information in regard to limbs will be cheerfully given to any who will address

SOLOMON P. STODDORD,

May 18, 1859.

Northampton, Mass.

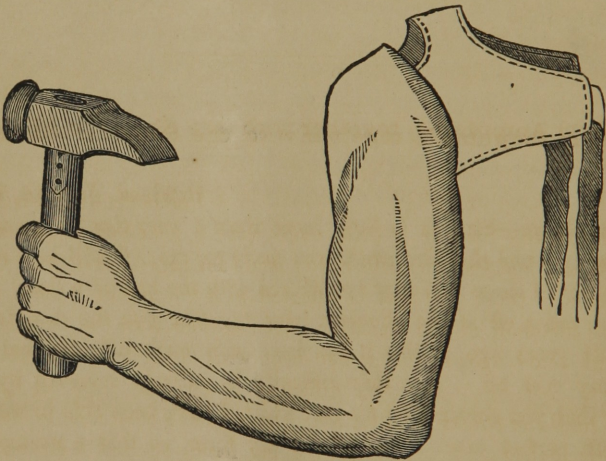
Foot Amputation.

Cambridgeport August 25, 1857.
I have used one of Drake's Patent Artificial Feet for nearly three years, and will state that every demand of comfort would not purchase the same of me if I could not get another one like it. I have worn it constantly from early in the morning until late at night—sometimes at noon, twenty hours in a day, in my store, and my business requires me to be almost constantly on my feet. It fits me comfortably, and is every thing I could ask for.
GEO. L. GADE

Foot Amputation.

Dr. J. S. Drake—Sir: Your testimony added to that already published for your country will be of my service to my fellow sufferers. I will

Fig. 5.



FINISHED ARM, FOR ABOVE THE ELBOW.

TESTIMONIALS FROM PATIENTS

WEARING ARMS AND HANDS ABOVE THE ELBOW.

(SEE CUT ON OPPOSITE PAGE.)

Arm Amputated, together with the Shoulder Blade.

Portland, July 16, 1858.

J. S. Drake—Sir: It is little more than a year that I have worn the artificial arm and shoulder which you made for me. I will here state, for the benefit of those who may be afflicted with the loss of a limb, that my arm was taken off at the shoulder joint together with the shoulder blade, some 21 years ago, so that it has been with much difficulty that I could keep my coat on. But this difficulty is entirely removed by the use of the limb you constructed for me, which I have been able to wear every day with perfect ease. It improves my form, so that a stranger would not notice that I had ever lost my shoulder, and it more than meets my expectation as to keeping my coat in place. I would advise any one who is deprived of the use of an arm to have Drake's artificial ones applied. I have examined the limbs of others, and think this one the best of any I have ever seen.

Yours respectfully,

ELI L. WING.

Arm Amputation above the Elbow.

Naushon Island, Mass., May 26, 1859.

Dr. Drake—Dear Sir: My daughter, a year ago last November, had her right arm taken of above the elbow, leaving about four inches of

stump. I procured one of your artificial arms about four months ago, and I found it more than answer my expectations, for she now sits a-sewing with ease, handling her work with her new arm. She finds it very handy in a thousand ways that I did not expect. So, I can recommend any one that has lost an arm to call on Dr. Drake, and procure one of his, for I think they will find his to be the best that can be had in the country.

Respectfully yours,

JOSEPH R. LUCE.

Arm Amputation above the Elbow.

Malone, N. Y., Nov. 29, 1858.

Dr. J. S. Drake—Sir: I am very much pleased with my artificial arm and hand. I find it useful in a great many ways. I can carry a pail of water with ease. I can carry an armful of wood quite handy. I can hold a knife or fork to feed. So, I hope, any unfortunate person losing their limbs will apply to Dr. J. S. Drake's. As for the arms and hands, I can recommend them.

Yours truly,

ALEX. McKEE.

Arm Amputation above the Elbow, close to the Shoulder.

Providence, R. I., Dec. 24, 1856.

Dr. J. S. Drake—Sir: Having used one of your artificial arms for several months, I can judge with much certainty of its utility in future, by the more than expected benefit already received from it. I regard the mechanism and the action of all its parts superior to what I have seen embodied in the production of any other manufacture of artificial limbs. With it I find but little difficulty in doing many things that never seemed possible to be done with an artificial one, and I doubt not that I shall find many more uses that it may be applied to. Wishing you much success in your efforts to ameliorate the unfortunate,

I remain, yours, &c.,

EDWIN COWLES.

TESTIMONIALS FROM PATIENTS

WEARING ARMS AND HANDS BELOW THE ELBOW

Extraordinary Case.—Both Arms Amputated.

Sexton River, Vermont, Nov. 6, 1858.

I hereby certify, that on July 4, 1854, I lost my hands, and in 1855 I was fitted with a pair of artificial hands made by J. S. Drake, and I find them of great use to me. I can feed myself very well with them; also can write, so it can be read; and they are of great help to me in various ways. I would advise all those who have met with similar accidents, to get J. S. Drake's Artificial Hands before any others. I would not do without mine for twice what they cost me, if I could not get another pair.

Yours truly,

HOLLAND W. BARRY.

P. S.—The above was written with the artificial hands.

From Miss Helen R. McLean.

Moundsville, Va., Aug. 25, 1857.

Dr. Drake—Dear Sir: I am getting along finely with my artificial hand. I have already learned to sew with it, and can do a great many other things. I find it quite convenient at table, and in fact it is useful to me in every thing I undertake. Please accept the kindest wishes of a heart abounding in gratitude to one who has been the instrument of supplying so great a deficiency as a hand.

Very Respectfully Yours,

HELEN R. McLEAN.

Moundsville, Va., Jan. 3, 1859.

Dr. Drake—I have been wearing the artificial hand you made me for the past year, and find it to be very useful in various ways. In fact, I have found it to be all you represented it, and would advise all those who have had the misfortune to lose a limb, to apply immediately to Dr. John S. Drake, of Boston, Mass., where they will be accommodated in the most gentlemanly manner, and never regret the expenditure of their money, nor their trip to Boston.

Very respectfully, &c.,

HELEN R. McLEAN.

Baltimore, Md., Oct. 21, 1858.

Dr. J. S. Drake—Dear Sir: It has been only one month and a half since I received my artificial hand, and I can use it with very little difficulty. It entirely surpasses my expectations. I would cheerfully recommend it to all those who are without a hand, as a durable and most useful article.

Yours respectfully,

E. EDWIN STINE.

Providence, R. I., Sept. 4, 1857.

Dr. J. S. Drake—Dear Sir: Hearing that you are about to issue an enlarged pamphlet descriptive of your artificial limbs and their practical use, I would like to add my testimony to that of many others who have been so unfortunate as to lose a limb, and fortunate as to obtain one of your artificial ones. I have used an artificial hand and arm of your manufacture for about a year, and have found it to be as near to nature as art can come. I have about one inch of stump below the elbow. I frequently carry a pail of water, and oftentimes a basket of marketing on my artificial hand. In walking through the streets, I defy any one to tell which is the artificial hand. You will greatly oblige me, as you will many others, by adding my testimony to your circular.

WILLIAM P. DEAN.

Arm Amputation.

Lawrence, Kansas Territory, March 19, 1857.

Dr. J. S. Drake—Sir: I have used one of your artificial arms for about two months. My arm is amputated about two inches below the elbow. The longer I use the arm the more pleased I am with it, and the more command I have over it. Indeed I have almost as good command over it now, as a person has of the natural limb. It is with pleasure I add my testimony to the value of your invention.

Yours respectfully,

GEORGE F. KILLAM.

Arm Amputation.

Concord, N. H., August 5, 1857.

A little more than a year since, Dr. J. S. Drake made me an artificial limb, which I have worn every day since. I find it very convenient, and a good substitute for a hand. It is well worth the expense, to keep one's coat in place and shape. I find it to assist me in almost every thing I do. It is of use in a thousand ways in which a person in possession of two natural hands would never think of. It is a most convenient thing to drive my horse with. I have driven twenty miles in the coldest day, without calling upon my other hand for assistance.

W. F. SAVORY.

Arm Amputation.

Concord, N. H., Feb. 7, 1859.

Dr. J. S. Drake—Dear Sir: My artificial hand has and is still doing more than I could have believed it could do before I purchased it; but it would be folly to attempt to enumerate the different places where it assists me, or to say particularly what I can do with it; but I can safely say, that I think it, for strength and durability, the very best thing that ever was, or ever will be, invented. If I were at your office when people called to examine your work, I could show them more in five minutes than they could ever know until after they had worn one of your patent hands. There is no money that would hire me to spend the rest of my days without it.

Yours truly,

W. F. SAVORY.

SPECIFICATION

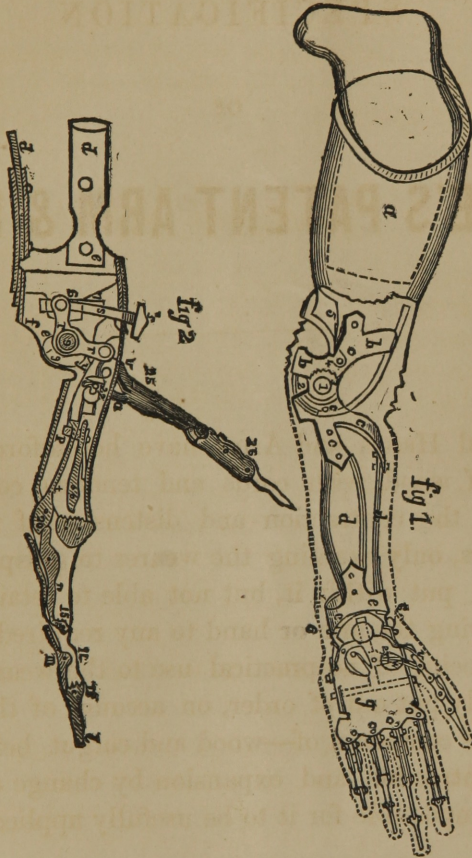
OF

DRAKE'S PATENT ARM & HAND.

Artificial Hands and Arms have heretofore been constructed of wood, with cords and tendons composed of catgut for the contraction and distension of the thumb and fingers, only enabling the wearer to grasp very light substances put within it, but not able to retain its grasp when moving the arm or hand to any required position; therefore being of no practical use to the wearer, besides being easily put out of order, on account of the material which it is composed of—wood and catgut being so subject to contraction and expansion by change of weather that it is impossible for it to be usefully applied to such a purpose.

The nature of my invention is entirely different in its construction and material, being a skeleton, composed of steel and whalebone, which locks with ratchet and pawls in all its joints, so that each joint can be used separately in all the fingers, or to any position that may be required.

Fig. 6.



SKELETON OF THE ARTIFICIAL HAND AND ARM.

I do not use catgut in the construction of my Artificial Arms or Hands.

The elbow is a peculiar construction, whereby the position of the forearm and stump can be varied. Also in an open circular wrist, which allows the hand to be turned to about the extent of the natural one; and the fingers and thumb are so constructed and arranged in connection with the hand and arm, that the wearer is enabled, with my artificial arms and hands, to use them for practical purposes.

Figure 1 is a view of the hand and arm with its exterior covering removed, to show the skeleton or metallic parts. *Fig. 2* is a section through the hand, wrist, and one of the fingers. *Fig. 3* is a cross section at the wrist. Similar marks of reference denote the same parts. *a* is a socket formed of sole leather, into the shape of the stump or arm to which the same is to be applied; this is provided with straps, as usual, for attaching the same into place; *b b* are straps from said stump to the elbow joint; 1 and 2 curved guard against which the metallic straps *c* of the forearm move, and abut against straps *b* when the the arm is fully distended; 3 is a ratchet wheel on the part *c*, at the joint 1, with a pawl (4) and spring (5), which hold the forearm at any desired angle, relatively with the stump, and when the said forearm is to be dropped so as to hang down, the back of the pawl 4 is pressed on disengaging it from the ratchet 3; *d d* are whalebone frames or ribs extending from the straps *c* to the straps *e* of the wrist, which wrist (*e*) is formed circularly, and receives within it the wrist piece *f*, that has mortises (7 7) running part way around or opposite side, and receiving rivets 6 in said mortise, connecting said piece *f* to the straps *c*, and allowing said wrist to be turned a limited amount around the line of *a*, as determined by a rivet or

stop (8, 9 9), or joint on the wrist piece *f*, connecting the *g* forming the palm of the hand, and the extent of motion is limited by rivet or stop at *e* taking a shoulder on the joint, as seen by dotted lines in *fig. 2*, and by edge of the wrist piece *f* as at *e*; *h* is back piece of the hand, jointed at 10, and connected by a bolt at 11, thereby allowing access to the working parts of the hand; *iiii* are knuckle joints, connecting the first joints (12) of the fingers; *k* is the second joint of the fingers, and *l* the third joint; 13 is a ratchet at the base of the third joint, which may be used on only the fore or middle fingers, or may be applied to all the fingers and thumb; and to this ratchet a pawl (*m*) is applied, the same being hung in the middle (14), so that the one end can be pressed into and hold the ratchet and the third joint of the finger in the desired position, or be disengaged therefrom on pressing in the other end; *n* is a pawl on a centre (28) between sides 12, kept to a ratchet wheel (15) on the end of the second joint (*k*) by a spring (16), and 17 is a ratchet wheel on the joint *i*, taking a pawl (*o*) on the inner part of the plate *g*, and 18 is a spring to keep said pawl to ratchet.

It will now be seen that each finger being thus constructed, one or all of them can be turned over towards the palm of the hand, and pressed into any article therein so as to hold the same firmly, in consequence of the ratchets and pawls aforesaid.

The manner, therefore, in which I disengage these pawls and straighten out the fingers when desired is as follows:—*p* is a cross bar sliding at its ends in slots in the edge of the hand (*g*), and from this a bar (*q*) pieces to a bent crank (*r*) on the centre pin of the joints 9, and 8 is a rod and button through a slot in the wrist, which is acted on by a simple touch; *tttt* are rods jointed at

19 to the knuckles, and passing freely through the rods p , and provided at this end with a head or bend to prevent pulling out of said bar p ; if, now, the button s be pulled out, the cross bar p is driven up and over runs the wires or rods t , allowing them afterwards to draw through as any one or more of the fingers may be turned, and at this point the bar p stands opposite a depression in each of the pawls o , so that they act freely in holding the fingers; but if the button s be pressed in, the bar p is drawn down, and taking the ends of the pawls o disengages them from the ratchets 17, allowing the rods t to pull the fingers back into a distended position, and as the first joints (12) become extended, the cam heads (20) on the rods t taking the pawls in, disengage the same from the ratchets 15, and allow the second joints (k) to be distended. The thumb (e) is formed similarly to one of the fingers, and is attached by a rivet at 24 to the hand (g), so that it can have a little swaying motion (see dotted arc fig. 2). The second joint (w) is provided with a ratchet similar to the ratchet 15, and the third joint (x) has a ratchet similar to 13, taking a pawl (26) the same as the pawl m ; u is a bar or pawl kept to the ratchet on the end of the joint w by the spring 25, the same as the pawl n ; and in order to disengage this pawl (u) when the bar p is drawn, I make use of a pin (21) on the bar q (see also dotted lines, *fig. 1*), acting on a lever (22), on the end of which is an eye (23) taking loosely the end of the bar u , so that said end is carried towards the knuckles as the button s is forced in, and the upper end of said bar u , which forms a pawl, is disengaged from its ratchet.

The skeleton of the Artificial Arm and Hand is formed from elastic materials, and is covered with a delicate skin, which gives it the shape and softness of the natural limb, so that a person not knowing it was artificial could take

hold of it without noticing that it was so. The weight of these Arms and Hands vary, for below the elbow, from three-quarters of a pound to one and a-quarter pounds; for above the elbow, from one and a-half to two and a-half pounds.

NOTICES OF THE AMERICAN PRESS.

From the Boston Evening Gazette.

ARTIFICIAL LIMBS.—To lose a leg or an arm is a great hardship, and even to be deprived of a finger joint one cannot but miss its use. How grateful should a person thus mutilated be should one come before him and touch his stump of an arm or leg, or a finger, and bid a new one sprout directly from it, endowed with muscular life and vigor. But the days of such miracles have gone by, if they ever existed, though the next best thing is to be found even now among us. Dr. J. S. Drake, whose office is on the corner of Tremont and Warren streets, has an invention by which those who have been unfortunate enough to be curtailed of their fair proportions may be restored to their primitive beauty and usefulness. Instead of the cumbrous and clattering pedals which, like Miss Kilmansegg's wonderful leg, go

“—— clump, clump, clump,
Like the ghost in Don Giovanni,”

Dr. Drake has made a delicate and ingenious machine, that bends naturally with the motion of the body, provided with springs that answer the purpose of muscles and sinews. He supplies hands that can shake hands and carve a dinner, and sew, and parts of hands, and toes, and single fingers; and it would seem that if one were all gone to a single finger, to give that finger to J. S. Drake, he could make a whole body to match it. His art is truly wonderful, and the maimed in his hands may be assured that they will come out nearly as good as new.

Among the great curiosity shops of our city particularly deserving a visit from the curious, scientific, or others, in search of a substitute for the

real bone and sinews of life, a leg or an arm, together with many other supports to failing humanity, Dr. Drake's should not be overlooked. Dr. Drake constructs artificial legs, arms, feet, fingers, and toes upon an entirely new principle, never before put in practice in this or any other city. The ease, comfort, and naturalness of these artificial limbs have given, in cases where they have been used, the best satisfaction, and many an unfortunate sufferer from the loss of some member has had lasting reason to thank the doctor for almost a restoration of the amputated limb.—*New England Directory*.

NEW LIMBS TO THE HUMAN BODY.—One of the greatest misfortunes which can befall a mortal is the loss of a leg or an arm, a calamity worse than palsy, plague, or fever, and one which some persons have even preferred death rather than submit to. Think then, kind reader, how great, how real that benefaction must be which supplies a new hand, a new foot, a new leg, or a new arm even better than the old one. Does this appear to you fabulous? Why, friends, all this is done by Dr. J. S. Drake, 297 Tremont street, who constructs these necessary appendages to the human body on an entirely new principle, which makes them be worn with perfect ease and naturalness, giving unqualified satisfaction to all those who have been so unfortunate as to need the use of them. We advise all persons in want of an artificial limb, or part of one, to call on Dr. J. S. Drake, and have him furnish whatever they may desire in this particular line, and we feel satisfied that they will be truly grateful to us for calling their attention to his new method of repairing some of the severest misfortunes to which human nature is heir.—*New England Directory*.



DRAKE'S PATENT LIMBS.



Those wishing to purchase DRAKE'S PATENT LIMBS, or to obtain information respecting them, may apply by letter, and their communication will receive prompt attention.

Persons at a distance wishing Artificial Limbs made and sent them can have them by taking the measures with care, and sending a cast taken from the stump with plaster. The style for measuring will be sent to every applicant by letter.

C A U T I O N .

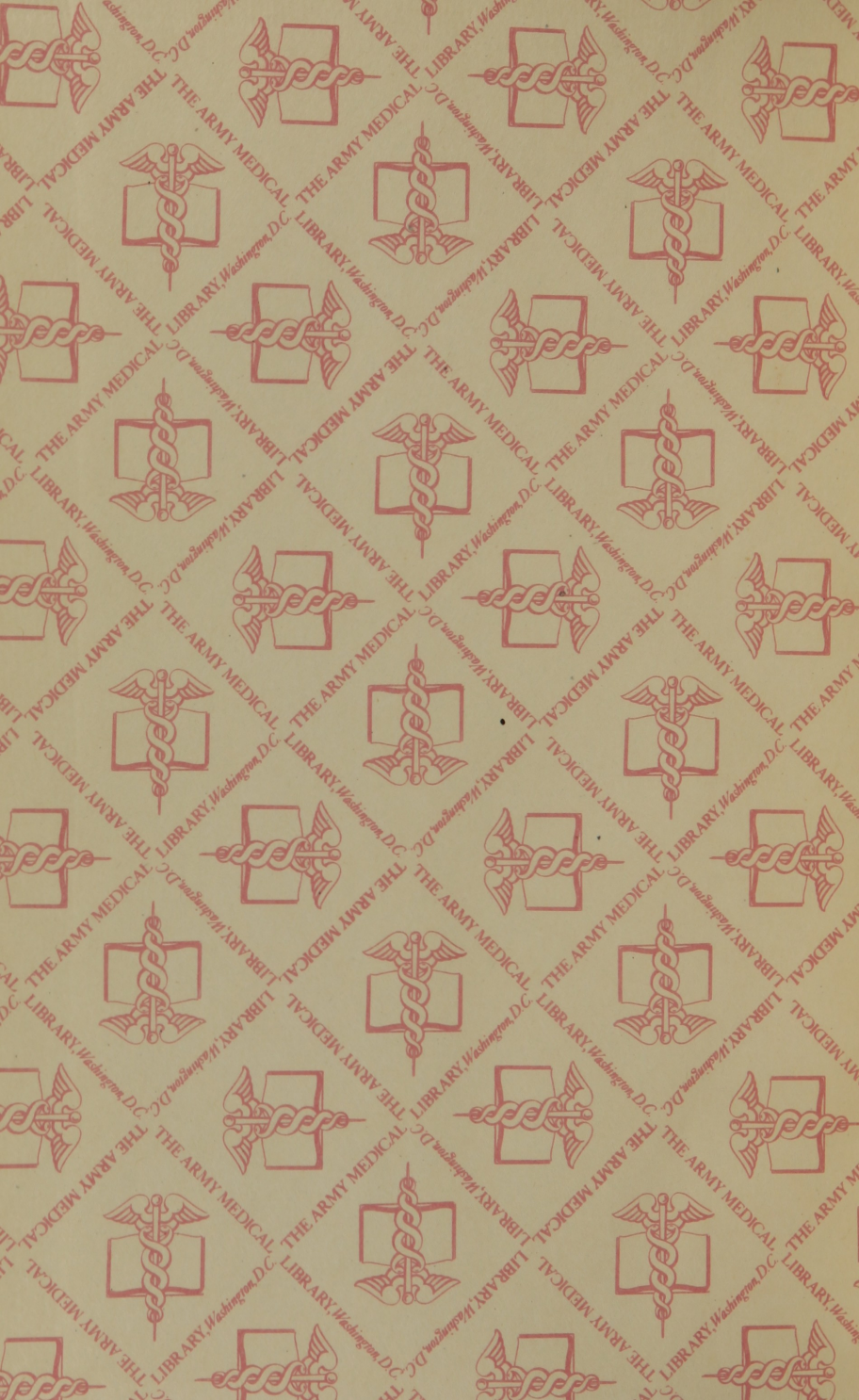
Letters Patent have been granted to DRAKE'S PATENT ARTIFICIAL LEGS, HANDS, and ARMS. All persons infringing any of these Letters Patent, by making and selling the same, likewise all persons purchasing and using any infringement of said Letters Patent are equally liable and responsible at law.

PARTICULAR NOTICE.

ALL Persons wishing DRAKE'S PATENT ARTIFICIAL LIMBS, &c., must send or give their orders at his office ONLY.

NOTE.—In the description of the Leg, page 5, I have neglected to state the full arrangements in regard to cases that require the use of two artificial knee joints, or others that may need the same. There is a lock at the knee joint which will lock, allowing a natural motion, and can be relieved by a simple pull of a string, that may lead to a watch guard or otherwise, so that the person can sit down with the leg at right angles, and in rising it will lock itself, so that the wearer is safe from any danger of tripping when walking.

J. S. D.





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