

# EXTRAORDINARY OBJECTS- EXTRAORDINARY STORIES:

## CELEBRATING THE NLM COLLECTIONS

NATIONAL LIBRARY OF MEDICINE  
NATIONAL INSTITUTES OF HEALTH  
8600 ROCKVILLE PIKE • BLDG. 38  
BETHESDA • MARYLAND • 1996



Illustration from Jan Cerny's 'Kniha Lekarska Kteraz Slowe Herbarz...' (Nurnberg, 1517)

Extraordinary Objects - Extraordinary Stories: Celebrating the NLM Collections.

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# EXTRAORDINARY OBJECTS- EXTRAORDINARY STORIES:

## CELEBRATING THE NLM COLLECTIONS

As we near the end of the 20th century, we have a heightened sense of the past, as well as the present. Through the history of medicine we



can see how fundamental concepts of knowledge about nature and the body have been redefined over the centuries. This exhibit of books, manuscripts, and ephemera from the National Library of Medicine's historical collections represents the diversity of medical thought and practice over time.

On display is a sampling of the Library's most valued acquisitions — treasures from the last five hundred years of Western medical history. These primary sources represent both the extraordinary moments of discovery, as well as the common and everyday practices of healing and health care. Unique in form and substance, these remarkable books and documents are artifacts of our cultural heritage, offering a glimpse into other times and places.

This exhibit is a celebration of the Library's rich and diverse historical collections, as well as a tribute to donors, the Friends of the NLM, and Library volunteers. Their contributions to the Library are warmly appreciated and acknowledged with gratitude.

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## **Celebrating the NLM Collections.**

Every great library has its treasure chest of rare and valuable books and manuscripts, carefully preserved and often protected from public view. Exhibits offer an opportunity to present some of these collections to the public, allowing viewers to appreciate their beauty, reflect on their meanings, and consider their connections to the present. In many ways, historical exhibits are about the creation of cultural memory through the preservation and presentation of history.

These treasures, collected from other times and places, reflect the long history of human cultural achievement. The objects on display in this exhibit are representative of the wide variety of published and unpublished sources collected by the Library--books, manuscripts, diaries, letters, reports, lecture notes, illustrations, photographs, and a range of ephemeral materials, such as broadsides, health certificates, and diplomas. The materials represent the major specialities of Western medicine since Gutenberg's invention of printing from moveable type in the mid-fifteenth century. One important story underlying the earlier items on display is the social transformation brought about by printing technology. With the invention of printed text and pictures, books became powerful vehicles of knowledge, validating and preserving the observations of their authors.

Historical sources can inspire us to understand our present through connections to, and contrasts with, the past. The field of medicine is continually remaking itself, challenging past

assumptions and redefining its future goals. In the midst of these constant changes, medical concepts and practices, understood in the context of their period and culture, can provide a common lens through which to look at society. During all of human history, people have encountered traumatic injury, disease, and chronic illness; practitioners and their patients have found ways of responding to these problems. By studying the documents they leave behind (correspondence, diaries, newspapers, photographs, and songs, to name a few), we gain a feeling of kinship with them--and sometimes reach insights relevant to current medical problems.

Recognizing that human experience rests upon the daily round of seemingly ordinary activity, our definition of cultural treasures has expanded to include much that at one time would have been deemed unimportant. What we define today as gems of human culture may be objects that were never intended to be preserved for posterity. We cherish them all, ordinary and exceptional, because they are essential to our exploration and understanding of who we are and what we can become.

## **Building the Collections**

The National Library of Medicine's historical acquisitions program is based on a broad interpretation of medical thought and practice. The NLM's goal is to collect medical history in its fullest--not only the exquisite and rare, but also the ordinary and commonplace, not only the "firsts," but also the everyday. Thus, the collection

includes a wide variety of formats and literature types, from the great works, such as William Harvey's *De Motu Cordis* (1628), to biographical works, personal narratives, first-hand accounts, diaries, and ephemeral materials, such as broadsides and pamphlets. These primary sources are unique reflections of the times in which they were created.

## **Brief History of the Historical Collections**

In 1865, when Dr. John Shaw Billings assumed the directorship of the Library of the Surgeon General's Office (now the National Library of Medicine), the Library already had a small medical collection, initially assembled by Surgeon General Joseph Lovell. But the pre-eminence of the history of medicine collection at NLM as we know it today, owes much to the creative spirit and tireless efforts of Dr. Billings. During his tenure (1865-1895), Billings acquired many early works, including incunabula (books printed before 1501), as well as manuscripts, prints, and photographs. By 1880, when the first volume of the *Index-Catalogue of the Library of the Surgeon General's Office* was published, the Library contained some 50,000 books and 60,000 pamphlets. As Principal Assistant Librarian, Fielding H. Garrison continued the Library's interest in the history of medicine. Garrison produced a list of classic texts in the history of medicine, which served as the basis for the famous Garrison and Morton bibliography, and in 1913, published his *Introduction*

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*to the History of Medicine.*

In the summer of 1942, rare items in the collection were moved from Washington, D.C. to a safer wartime location in Cleveland's Dudley Allen Memorial Library. The history collection was referred to as the "Cleveland branch" until 1945, when it was renamed the History of Medicine Division. It remained in Cleveland until 1962 when the new building for the Library--now the National Library of Medicine--was opened in Bethesda. The historical collection was insured for six million dollars, packed into four vans, and sent to Washington in the company of Pinkerton detectives.

### **Scope of the Collections**

The History of Medicine Division maintains a pre-eminent collection of the world's

published medical literature, including books, journal volumes, pamphlets, and theses, printed from the 15th through the early 20th century; manuscripts ranging in date from the 11th century to the present; and fine prints, and other graphic materials from the 15th century to the present. The collection consists of more than 600,000 printed works, 3,000 linear feet of modern manuscripts, 3,000 historical audiovisuals, and 60,000 historical prints and photographs.

### **Preservation of the Collections**

Special collections, by their very nature, represent a wide diversity in format, physical condition, and degrees of artifactual and informational value. The collections at NLM are drawn from one thousand years of history and have made their

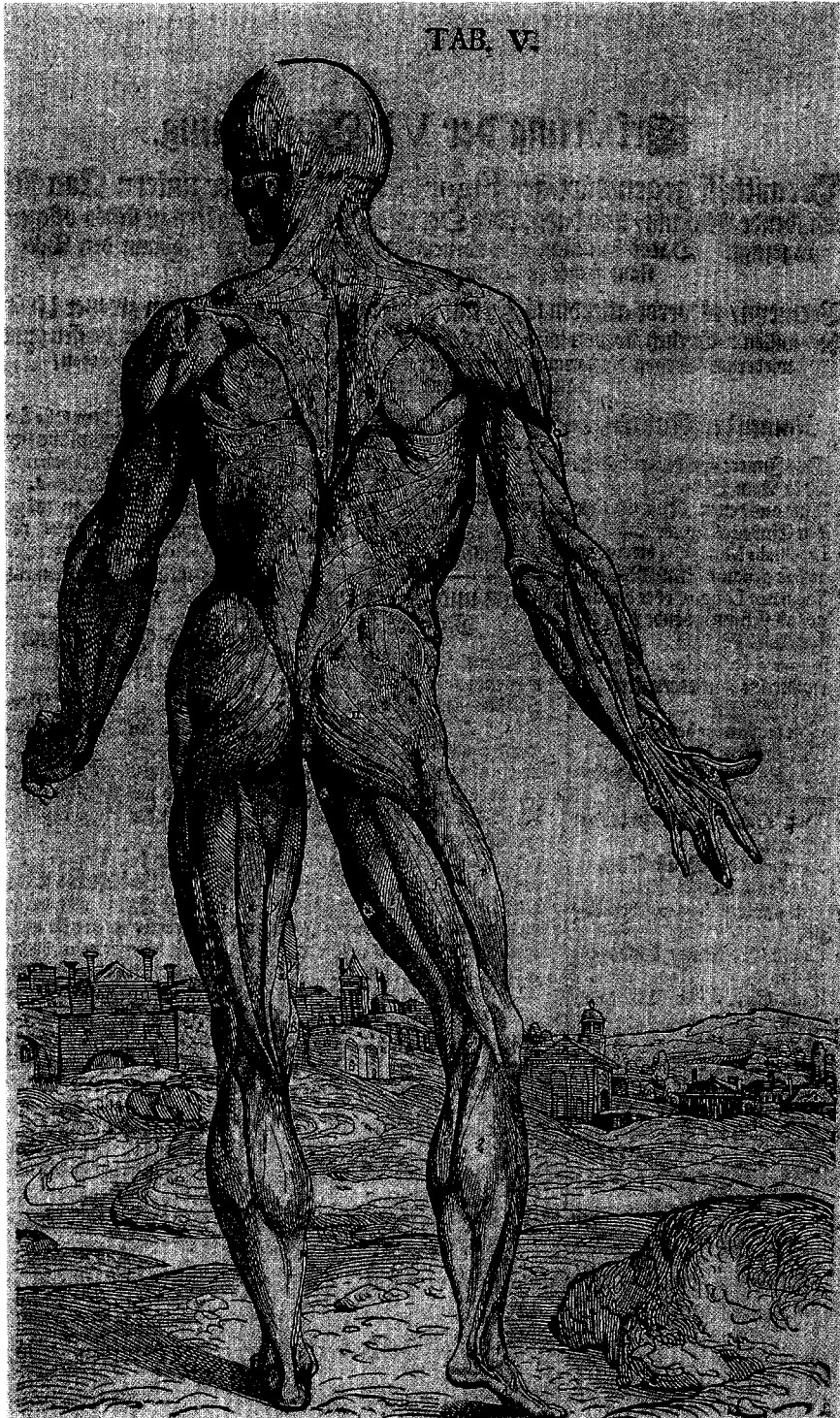
way to the Library often through circuitous routes. Some arrive in pristine condition, others in varying degrees of deterioration. The Library provides basic first aid and restoration onsite by way of cleaning and repair, and specialized rehousing. Microfilming, deacidification, and highly specialized treatment and repair are done offsite at a regional, state-of-the-art conservation center.

The National Library of Medicine's historical collections are a cultural repository that continues to be added to and preserved through an active acquisitions and conservation program. And as we move into the twenty-first century, we look forward to sharing our treasures with an even broader audience of users through the creation of digital collections on the World Wide Web.



# ANATOMY

Picture printing in the 16th century permitted and encouraged anatomists and naturalists to invest care and skill in their illustrations as records of their own observations. Repudiations by authors of pirated or plagiarized editions made clear that control was an issue in the pictorial representation of one's own observations.



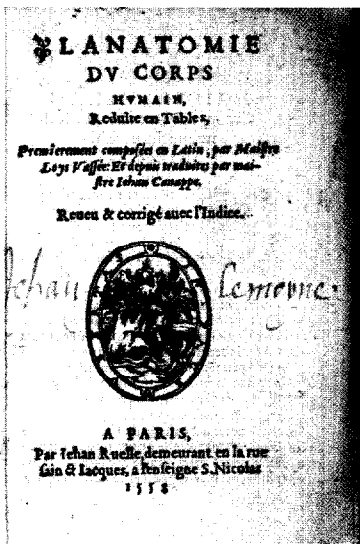
Vesalius, Andreas (1514-1564).  
*Zergliederung dess Menschlichen Körpers, oder Verfass der Anatomiae, insofern dieselbe Mahlern und Bildhauern, ja insgemein allen und jeden Kuenstlern... inglichem auch denen der Medicin und Chirurgie zugethanen sehr dienlich und erwuenscht ist.*  
Augsburg, 1723.

This second edition of *Zergliederung dess Menschlichen Körpers* (Dissection of the Human Body) contains nineteen illustrations made from the original wood-blocks used in Vesalius' *De Humani Corporis Fabrica* (1543). Vesalius was an experienced dissector and his anatomical drawings, based on direct observation, are notable for their accuracy as well as artistic beauty. The muscle figure shown here is one of a series of full page illustrations which are linked by a continuous landscape view of the Colli Euganei region near Padua, Italy. The portrayal of "living" skeletons and muscle figures, used also by Leonardo da Vinci, presents anatomy in a visually animated form.



# ANATOMY

A letter by Vesalius, printed at the beginning of the 1543 edition of the *Fabrica*, marks the first appearance of the problem of plagiarism in medical illustration. In the letter, Vesalius accuses particular authors and publishers of having stolen from his *Tabulae Anatomicae*.



Vasse, Loys. *L'Anatomie du Corps Humain*. Paris, 1558.

This French translation of Vasse's collection of Galen's anatomical writings contrasts with the lavishly illustrated folio anatomies of Vesalius and Valverde. A follower of Galen, Vasse did not at first appreciate the value of including illustrations in anatomical texts. Later, when he did publish a folio edition with four accompanying plates, he was accused of plagiarizing from the work of Vesalius.

## Tauola. I. del Lib. II.

64



Valverde, Juan. *Anatomia del Corpo Humano*. Rome, 1559.

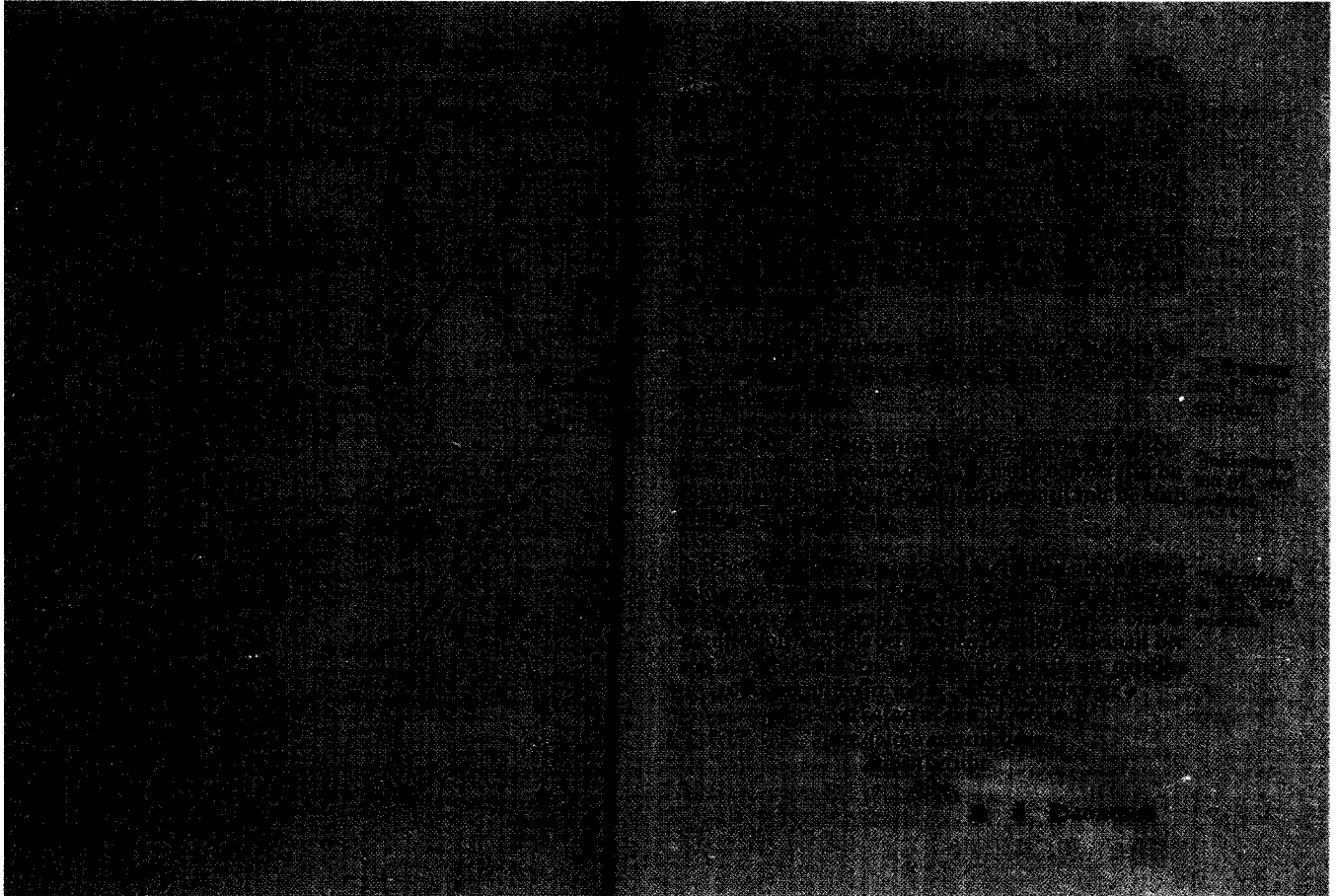
The anatomical textbook, *Anatomia*, by Juan de Valverde de Hamusco, is the most successful of the Vesalian "plagiarisms." There are forty-two engraved plates, the majority of them borrowed from Vesalius' *De Humani Corporis Fabrica*. New

features contained in the Valverde anatomy include the now famous "flayed figure" shown here, done by Valverde's friend, the artist Gaspar Becerra, who had worked with Michelangelo in the Sistine Chapel of the Vatican.

# SURGERY

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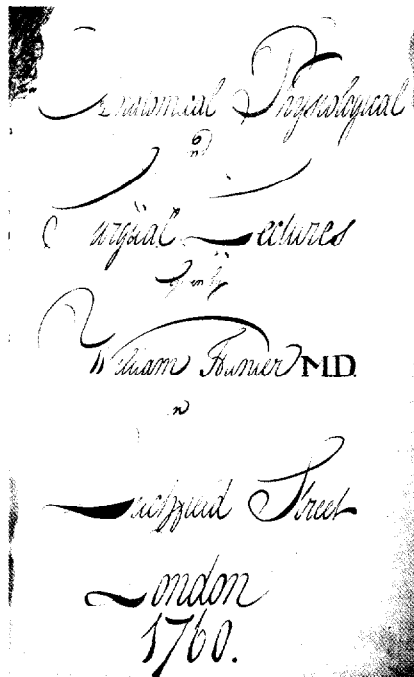
Up to the 19th century, surgery was still being performed by barber surgeons, for whom hair-cutting and shaving was their primary means of income. The growth of hospitals and spread of anatomy schools in the 18th century, boosted surgery's prestige. By 1800, surgery as a field of medical practice was no longer associated with the traditional barber and bleeder. The status of surgery continued to grow into the 20th century and the professional and social position of the surgeon today is one of considerable prestige.



Ryff, Walther Hermann (d.1548).  
*Die kleyner Chirurgi*. Strassburg,  
1542.

Ryff was a physician and surgeon of Strassburg and wrote books on distilling and anatomy. This is his first work on the topic of surgery. Surgery was regarded as manual labor and surgical illustrations show operations and implements. Surgical textbooks of the 16th century are full of such illustrations. Shown are two instruments used to remove a bladder stone by opening and stretching the urethra.

# SURGERY



Hunter, William (1718-1783). "Anatomical, Physiological, and Surgical Lectures given by Dr. Hunter in Litchfield Street." London, 1760.

This manuscript contains William Hunter's detailed lectures given from his home in Covent Garden on physiology, surgery, anatomical preparations, and dissection. Hunter was considered an eloquent lecturer and his talks attracted large audiences, including medical practitioners, students, and members of the public. Hunter was a well-known proponent of dissection and his lectures were among the first permitted to be heard after the relaxation of the London surgeons' rules against human dissection in 1745.

*Handwritten text from the manuscript, likely the beginning of a lecture or section, discussing anatomical and surgical topics.*

*Summary*  
 Summary of the text, providing a brief overview of the content of the manuscript.

Cline, Henry. "Lectures on Surgery." London, c. 1790.

This 18th century manuscript of surgical lectures, in pristine condition, covers an extensive range of procedures, including mastectomy, cataract removal, lithotomy, and tonsillectomy. Influenced greatly by the prominent London surgeon, William Hunter, Cline was described by students as "a cautious, sound, and successful surgeon, an excellent lecturer." Some considered him "the greatest the staff of St. Thomas' has ever known." Lecture notes such as these are extremely valuable sources of medical information.

TO SURGEONS AND PHYSICIANS.

The subscriber is prepared to furnish a person fully competent to administer his compound to patients who are to have surgical operations performed, and when it is desired by the Operator that the patient should be rendered insensible to pain. Personal or written applications may be made to

W. T. G. MORTON,

Boston,

No. 19, Front Street, Boston.

Morton, William Thomas Green (1819-1868).  
 To Surgeons and Physicians.  
 Boston, 1846.

This printed letter from Dr. William T. G. Morton is a single page circular, folded and mailed to his Boston medical colleagues in November, 1846. The letter announces Morton's discovery of ether and represents his earliest public statement on its use. Ether had been successfully used as an anesthetic as early as 1842 by Crawford Long, but his findings were not published until after Morton had already announced the anesthetic effects of the compound.

# SURGERY

The integument covering the left groin have sloughed away, leaving an open ulcer six inches in length by about 4 in width. Cont. N. 5 post. face.

July 23<sup>rd</sup>. The fractures of the ulna, clavicle and right malleolus, and indeed have all kindly united and indeed the fracture of the left leg has acquired considerable firmness, but an ulcer over it though not communicating with the bone, looks badly and has a foetid and sanious discharge, a sinus extends along the course of the peroneal muscles from which this same unhealthy discharge issues. Squeezed. Directed compressions be made over the track of the sinus and a stimulating poultice to the ulcer and surrounding the leg at that joint. R. Pil. opii grsij. m. & n. sumend. Ponic litters and Stimulating diet.

July 25.



John Thompson  
Aet. 54 Years.

Brown, Joseph B. "Memoranda of Cases: Case Book, June 5, 1845 - June 15, 1849". Detroit, 1845-1849.

Joseph B. Brown's remarkable notebook chronicles surgical treatments of prison inmates with a variety of injuries and physical deformities. The notebook includes sketches by Brown and descriptions of patients, such as John Thompson, the patient shown here. This illustration drawn by Brown shows exactly how Thompson's harelip and cleft palate were repaired. Brown treated deformities with plastic surgery, which had been introduced as early as 1786.

Epidemics continued to devastate cities and countries well into the 19th century. The organization of physicians, hospitals, and public health activities arose out of the rapid changes brought about by the Industrial Revolution. Since World War II, more and more countries have developed public health programs to control disease and improve the health of their populations. Today, the World Health Organization serves as a coordinating body among the countries of the world to maintain the health of the world's population.

*Hydrophobia. An Account of the Awful and Lamentable End of a Whole Family.* Glasgow, 1824.

This broadside, printed in Newcastle, circa 1824, relates the story of the "lamentable end" of a family stricken with hydrophobia after drinking milk from a cow which had been bitten by a mad dog. Hydrophobia, or fear of water, was a symptom of rabies. An "efficacious" treatment for hydrophobia is provided for the readers' benefit. Broad-sides such as this were a way for town officials to warn the public of health hazards.

A gift to the Library from Worth Daniels, Jr., M.D.

# HYDROPHOBIA.

**An Account of the awful and lamentable End of a whole Family, who died deranged, from drinking the milk of a Cow, bit by a Mad Dog.—Also, of the Death of 2 Persons, and the state of others, bit by Dogs, in and near Glasgow, on Friday, Aug. 28th. 1824.**

A respectable farmer's family, of the name of Smart, it appears, kept a number of Cows, one of which had been seized with hydrophobia, communicated, it is now supposed, by the bite of a strange dog, which was seen prowling along, by a neighbouring settler, about this period, and running against the direction of the wind, which is peculiar to dogs in that state, till they drop down. The Cow in question was unfortunately selected, at the time alluded to, for yielding milk for the family's own service: the awful consequences afterwards developed themselves, as in the relation of an eye-witness. It happened at New Lanark.

THE eldest daughter, who had been confined to bed in bad health for some time, and had been advised to adhere to a milk diet, was the first sufferer. The symptoms of the approaching malady were mistaken by her parents as indications of the early beginnings of her disorder; or, as we would say, 'the turn' of the consumption she had been afflicted with. The paleness that now overspread her countenance, succeeding the destined hectic flush, gave some hopes to her doating parents, that this was the time when the sore-oppressed heart summons all the life-blood to its assistance—and endeavouring to repel from its territories the sickly ensign of death.—But the paleness, languor, and quiet of the poor young woman shortly began to give place to more alarming appearances; melancholy, hoisting apathy, were succeeded by restlessness, raving, uncontrollable frenzy, and, at length, horrible madness! The stages of the malady had now accumulated to a crisis; and it was now that an aged father besought the Almighty that he would in mercy be pleased to end the existence of a loved child that was now a pain to him. In two days he laid her in the grave, just as the surgeon had arrived on his weekly visit from a distant town, who was told that she had had a relapse, with the appalling consequences. The singularity of the case made some impression on his mind, which he forebore to communicate; but two days subsequent to the burial he received a letter, stating that a neighbour, on finding a stray dog, with a broken chain, enter his house and whine piteously, he, on examining the collar, discovered it to be Smart's; and, on taking it home, ascertained that Smart, his spouse, and his son were evidently in a lunatic state. The surgeon on repeating thither, was met on the way by Smart's servant, who seconded the account, and stated that one of the cows had bitten several others. The horrid reality now burst on the surgeon's mind, which he in part suspected previously, but that none of the family complained having been bitten by any dog. He then immediately acquainted the mayor, when, setting out with attendants, after securing the passages to the house, a council being held, they came to the awful, yet necessary, resolution of putting a period to their sufferings, in a way which few would wish to read much less to see; and which was accordingly done.

Some murmurs having been made by some persons at the supposed severity exercised towards their dogs, the above account (added to that of the son of Mr W—, a respectable bleacher, at W—de, whose lamentable death was occasioned by a bite from a dog he was caressing) should content them not so hastily to condemn the only preventive in a case which scarcely admits of a cure:—also, of Mr Purdon, of the Hyndland, both within two miles of Glasgow, and which latter gentleman, while in the humane act of rescuing a lap-dog, belonging to some ladies, from being worried by a mastiff, had his hand lacerated by the animal which he had rescued, when, symptoms of hydrophobia ensuing, a dreadful premature end followed. On Thursday last, a respectable farmer, in the parish of Mearns, was obliged to destroy a fine cow, she having been bit by a mad dog. A man was also bitten in Duke Street the same day. Sixteen dogs were destroyed in Glasgow last Wednesday, being found at large in despite of the proclamation; and two thousand have been destroyed in Liverpool in the space of a month.

## Efficacious Treatment of Hydrophobia.

To man or animals attacked with this terrible disease, small whitish pustules appear near the ligament of the tongue, which open spontaneously on the third day after the bite; at this crisis the first symptoms of the real disorder become manifest. By lancing these pustules nine days after 'he bite, by extracting all the humour, and washing the mouth well with salt water, the fatal effects are prevented. Several individuals have been saved by this process. In the year 1759, a person *pro homo publico* caused a stage to be erected at Charing Cross, London, and, in the presence of many thousands of people, permitted himself to be bit by a mad dog for the purpose of exemplifying the cure, which simply consisted in rubbing into the wound some common salt, which he described as a specific for this, frequently, unfortunate calamity.

Re-printed for Wm. Lockard, by T. Blagburn, Newcastle.

PREGON

Y  
VANDO, QUE POR MANDADO de su Magestad se ha publicado en su Corte, para que se guarde en ella, y en las demas Ciudades, Villas, y Lugares de estos Reinos, conforme a lo acordado por el Consejo.



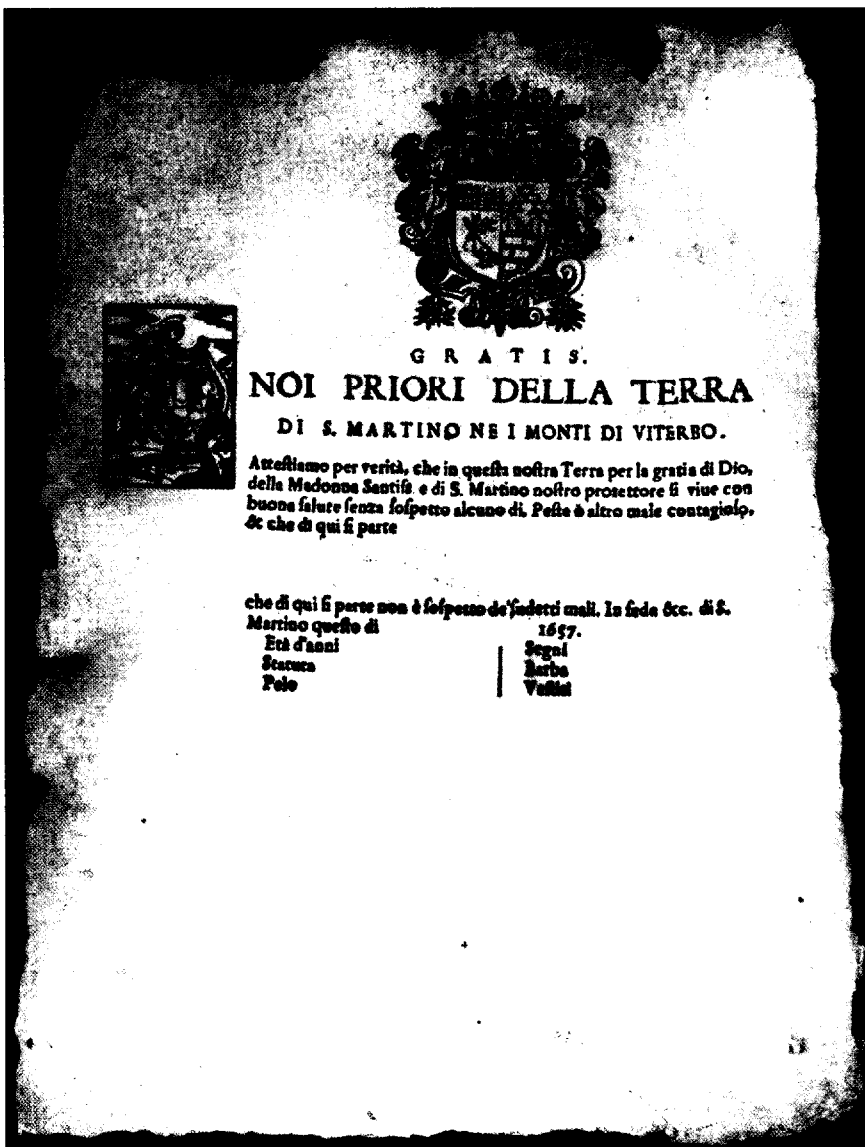
CON LICENCIA.  
EN MADRID, POR LA VIUDA DE ALONSO  
Munoz. Año 1630.

Printed in office of Martin Gil de Cardenas.

*Pregon y Vando, que por Mandado de su Magestad se ha Publicado en su Corte, para que se Guarde en Ella, y en las Demas Ciudades, Villas, y Lugares Destos Reinos, Conforme a lo Acordado por el Consejo. Madrid, 1630.*

In response to a plague outbreak ravaging Milan in the 1600s, strict measures were imposed. This extremely rare quarantine proclamation, issued in 1630 by Philip IV of Spain, restricts entry into Spain to those holding a certificate of health.

A gift to the Library from Sheldon G. Cohen, M.D. in memory of his parents, Samuel and Dorothy G. Cohen.



*Gratis. Noi Priori Della Terra. [Viterbo, 1657?]*

This is a health certificate issued in Viterbo, near Rome, following the great plague outbreaks of 1656 in Rome, Genoa, and Naples. Such certificates, carried by travelers, declared their bearers were free of contagion and permitted their travel from city to city during the pestilence. The traveler was identified by

stature, clothing, hair, the presence of a beard, and any other distinguishing marks.

The quarantine, or the passive isolation of healthy people, was common after the 1450s and was one of the earliest public health practices.

Chamberet, Jean-Baptiste-Joseph-Anne-Cesar Tybras de. Manuscript report, "Rapport sur le Cholera morbus observe en Pologne," a cholera passport, and map. 1831.

Between 1829-1830, cholera claimed more than 900,000 lives worldwide. In 1831, Jean-Baptiste de Chamberet, a highly distinguished military surgeon, was sent to Poland with a French medical team to study the cholera epidemic and develop a program to limit the spread of infection. A copy of his report is shown here, as well as the cholera passport he used to gain access to hospitals in the stricken regions. This small map is one of two included in the collection.

*[Vertical text in French, likely a medical report or administrative document, partially illegible due to orientation.]*

Cholera de l'Inde	Cholera de Pologne	Cholera d'Asie
<p><i>[Handwritten text describing cholera symptoms in India, mentioning vomiting and diarrhea.]</i></p>	<p><i>[Handwritten text describing cholera symptoms in Poland, mentioning vomiting and diarrhea.]</i></p>	<p><i>[Handwritten text describing cholera symptoms in Asia, mentioning vomiting and diarrhea.]</i></p>
<p><i>[Handwritten text describing cholera symptoms in India, mentioning vomiting and diarrhea.]</i></p>	<p><i>[Handwritten text describing cholera symptoms in Poland, mentioning vomiting and diarrhea.]</i></p>	<p><i>[Handwritten text describing cholera symptoms in Asia, mentioning vomiting and diarrhea.]</i></p>

Rapport sur le Cholera morbus observe en Pologne en 1831

*[Handwritten text in French, likely a preface or introduction to the cholera report.]*



ROYAUME DE Pologne 1831

**DOZOR Szpitali Wojskowych.**

*[Handwritten text in French, likely a medical certificate or passport for military hospitals, mentioning the name Chamberet.]*



*[Handwritten signature or name, possibly 'Chamberet' or 'Tybras de'.]*

# PHARMACY

Herbals were a popular source of information about medicinal remedies throughout medieval Europe, although works of medical botany had been produced since antiquity. Until there was moveable type, the variability of hand-copied illustration limited the didactic use of pictures in favor of text. Printed books in turn inherited from their manuscript predecessors this tendency to present illustrations subordinate to text.

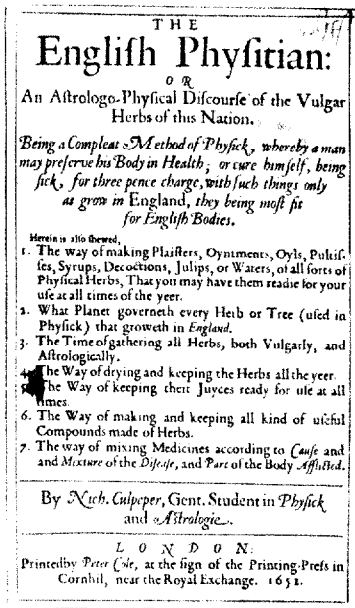


Cerny, Jan. *Knieha Lekarska Kteraz slowe Herbarz: aneb Zelinarz: welmi uziteczna: z mnohych knih latinskych. y zskutecznych praczij wybrana: poczi- na se sstiatnie.* Nurnberg, 1517.

Cerny was a master of botanical description; his work presents information on over 440 plant, animal, mineral, and chemical remedies. The woodcut illustrations were added by the editor who took them from an earlier work by Johann von Cube. This copy, one of only five known copies, has fifty leaves of manuscript pharmaceutical recipes. It is hand colored and includes extensive annotations.



# PHARMACY



Culpeper, Nicholas (1616-1654). *The English Physitian, or an Astrologo-Physical Discourse of the Vulgar Herbs of this Nation.* London, 1652.

A rare first edition, this popular English herbal was printed in London in 1652. Culpeper provides recipes for the ordinary person seeking treatment for common illnesses; the book was so popular that in the first year it was printed, two counterfeit editions were also published. Culpeper was an astrological herbalist who incurred the wrath of the Royal College of Physicians of London by publishing an unofficial translation of the *London Pharmacopoeia*. *The English Physitian* enjoyed large commercial sales, but did not win the acceptance of the London medical profession.



Di Petris, Andrea. "Il Bottonico Curioso in cui si vede le vive Piante Delineate, et Miniare al Naturale, Locodove nascono, Forma, Qualita, et Virtu Loro, Cavati da Gravi Antichi, et Moderni Autori, et dalla Esperienza Quotidiana Probata, Come anco di quelle non pui mai trovati, ne men scritte d'altri Autori, le quale con Somme Dilligenza, Gustate, Considerate, et Probate in diversi modi et maniere." Padua, 1730.

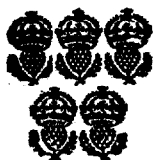
This carefully written and illustrated manuscript documents herbal medicines from the region surrounding Padova, Italy. Over 200 herbs and plants are described by Di Petris in this exceptionally rare manuscript. Colorful botanical drawings enhance the detailed descriptions of physical structure, geographical locations, medicinal uses, and associated folklore.

# PHARMACY

PHARMACOPOEIA

Collegii Regalis

LONDINI.



LONDINI,

Excudebat H. Hills, Impensis T. Basset,  
J. Wright, R. Chiswell, &  
T. Newcomb. 1682.

Royal College of Physicians  
of London. *Pharmacopoeia  
Collegii Regalis Londini.*  
London, 1682.

This *London Pharmacopoeia*  
was printed in 1682. This  
beautiful pocket edition is  
bound in contemporary black  
morocco, with spine gilt in  
compartments, gilt panelled  
sides with acorn ornaments,  
and silver clasps and corner  
pieces.

## TABULA SMARAGDINA

Medico-Pharmaceutica;

*In qua*  
Sexcentorum contra omnis generis mor-  
bos probatissimorum selectissimorumque Medica-  
mentorum, in nullo Dispensatio obviatorum, sed partim ex  
optinis & hoc tempore nominatissimis Practicis desumptorum,  
partim ab Amicis communicatorum, partim ex privatis manuscriptis  
erutorum, partim denique propria industria adinventorum,  
fidelis & accurata Descriptio, ordine, ut vocant,  
alphabetico, insculpta legitur.

Cum Indice Arborum & Medicamentorum.

Opus  
& Medicis, & Chirurgis, & Pharma-  
copoeis perutile:

Studio  
PHILIPPI FRAVNDORFFER,  
Phil. & Med. Doct. in Marchionatu Moraviae Phys.  
Provincial. Regii, Acad. Casareo - Leopoldinae  
Nat. Cur. Colleg., d. Herodici.

NORIMBERGÆ  
Sumpt. JOHANN. ZICKER & GEORG. LEHMANN.  
ANNO MDCCLXIX.

Frauendoerffer, Philipp.  
*Tabula Smaragdina Medico-  
Pharmaceutica.* Norimbergae,  
1699.

Frauendoerffer, a physician  
and pharmacist, compiled  
this list of six hundred phar-  
maceutical preparations,  
drawn from ancient and  
more contemporary sources  
of the period. This edition,  
printed in Nuremberg in  
1699, was the first of many  
editions of this popular work.  
It includes a list of diseases  
with their chemical treat-  
ments.

30   
latio igne lenissimo, & in cap-  
tello vel rostro ponatur *Ambra &  
Moschiana* ℥ss. cum syndone rub.  
Detur imbecillo vel naturâ, vel  
vi morbi *cochlear* unum saxe, &  
humectentur in hoc destillato lin-  
tea pura, quæ admoveantur cor-  
di, temporibus, pulsibus & nari-  
bus.

### 40. Aqua Ophthalmica D. Döreri.

℞ *Rad. Valeriana*  
*Phu Pontic. ana* ℥ij.  
*caryophyllat.* ℥ss.  
*Fol. ruta*  
*verbena*  
*feniculi*  
*euphras. cum fl ana* ℥vj.  
*Baccar. Junip. rec.* ℥j.  
*lauri* ℥ss.  
*Flor. calend.*  
*meliss. Turcica*  
*salvia*  
*rorismarin.*  
*rosar. alb. ana* ℥ij.  
*Sem. fenicul.* ℥ss.  
*caryophyll.*  
*cardam. min.*  
*cubeb. an.* ℥j.  
*cinamom. acut.* ℥j.  
*lig. aloës*  
*rhodij an.* ℥j.

Preparatis i. a. affunde *vini Ma-  
vatici* ℥xij. postea in balneo de-  
stillentur.

### 41. Aqua Ophthalmica ex- terna D. Meybomii.

℞ *Zing. alb.*  
*Camph.*  
*Staphys agria*  
*Pyreth.*  
*Ruth. an.* ℥ss.  
*Rad. consolid. maj.* ℥j.  
*caryoph. ℥j.*  
*Flor. consolid. regal.*  
*chelidon. an.* ℥j.

Concis. & contus. infunde in spir.  
*vin. rhenan.* ℥j. in calore leni per  
duos dies, deinde filtra per char-  
tam.

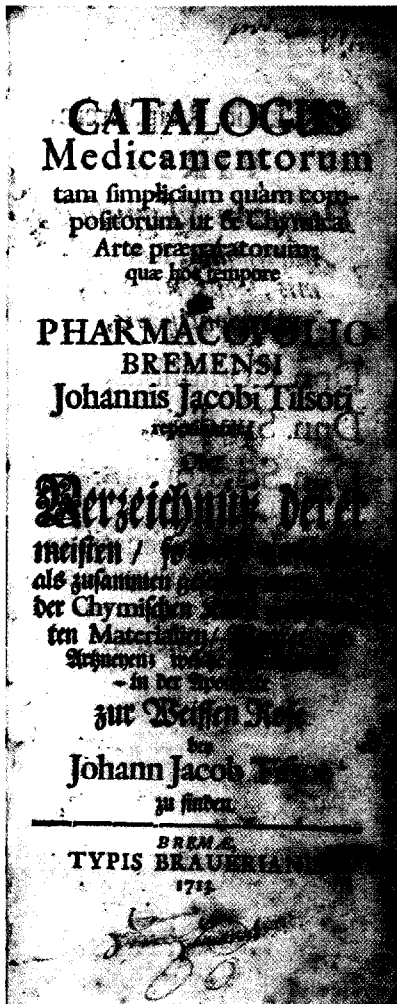
### 42. Aqua Ophthalmica vera Mart. Rulandi.

℞ *Vitr. ℥ii pulverizat.* ℥ss.  
*Aq. fenicul.*  
*rosar.*  
*chelidon.*  
*euphras. an.* ℥ss.

Coq. in XX recto in arena posito  
per  $\phi\phi$  cola. Residua depura-  
ta adde  $\phi\phi$  *h rub.* ℥j. serventur  
usui.

B 4 43. Aqua

# PHARMACY



S. 56		S. 57	
Syrupus	Berberum.	Sauerachs Beeren Syrup.	
	Betonica.	Betonien Syrup.	
	Borraginis.	Borragien Syrup.	
	Bizantinus.		
	Capill. vener.	Frauen Haar Syrup.	
	Cardui benedict.	Cardenbenedicten Syrup.	
	Cerasor. acid.	Sauer Kirschchen Syrup.	1 2/3
	Cichor. c. Rhab.	Rhabarber Syrup.	3 1/2
	Cichor. simpl.	Begiwarten Syrup.	1 2/3
	Cinamom.	Zimmet Syrup.	3 1/2
	Citri cort.	Citronenschalen Syrup.	2 1/2
	Cochlear.	Löffelkraut Syrup.	1 2/3
	Corallor.	Corallen Syrup.	3 1/2
	Cydonior.	Quitten Syrup.	
	Diacod.		
	Enula.	Mantwurzel Syrup.	
	Krisani.	Wegstich Syrup.	
	Farfara. S. Tuffal.	Sufflartig Syrup.	
	Poenicul.	Fenchel Syrup.	aa 1 2/3
	Fragorum.	Erdbeeren Syrup.	2 1/2
	Fumar.	Erdrauch Syrup.	1 2/3
	Grana Kermet.	Scharlach Beeren Syrup.	1 1/2
	Haeder Terrestris.	Gundelraben Syrup.	1 1/2
	Hyllopi.	Hopen Syrup.	
	Jujubin.	Heustbeeren Syrup.	
	Liquiritia.	Süßholz Syrup.	1 2/3
	Manna.	Lactierender Manna Syrup.	3 1/2
	Mentha.	Kraus Munde Syrup.	
	Myrsillor.	Heidelbeeren Syrup.	
	Nimphor.	Seebumen Syrup.	
	Papaver. alb.	Weißer Mohr Syrup.	
	errat.	Klappertropfen Syrup.	
	Plantaginis.	Wegbreit Syrup.	aa 1 2/3
	Rosae flor.	Rosien Blumen Syrup.	3 1/2
	sque Radic.		1 2/3
	Syr.		

Tissot, Johann Jacob.  
*Catalogus Medicamentorum tam  
 Simplicium quam  
 Compositorum ut & Chymica  
 Arte Praeparatorum, quae hoc  
 tempore in Pharmacopolio.*  
 Bremen, 1713.

This is a list of pharmaceuticals offered for sale in Tissot's pharmacy in Bremen. The drugs are listed alphabetically, giving both the Latin name and its German equivalent. The prices have been added by an 18th century hand.

# MILITARY MEDICINE

The two objectives of military medicine, to keep the army in good health, and to treat those fallen in combat, have produced many medical innovations and inventions through the centuries, especially in the areas of surgery and the control of infectious diseases. Ambroise Paré's treatise on gunshot wounds, Dominique Jean Larrey's "flying ambulances", Silas Weir Mitchell's work on injuries of nerves, and Walter Reed's work on yellow fever are all triumphs of military medicine. General Washington's concern for the health of the troops of the Continental Army and his attempts to improve their living conditions are well documented. Unfortunately, sanitation and hygiene left much to be desired and more soldiers died from disease than from battle in both the American Revolutionary War and the Civil War.

19  
Head Q<sup>r</sup> Sep<sup>r</sup> 9 1780

Dear Sir,

I have heard that a new arrangement is about to take place in the Medical Department, and that it is likely, it will be a good deal curtailed with respect to its present appointments. Who will be the persons generally employed I am not informed, nor do I wish to be. I can only mention to you, that I think Do<sup>r</sup> Craik & Cochran seem their services, abilities & experience - and their close attention, have the strictest claim to their country's service, and to be among the best Officers in the Establishment. -

There are many other deserving characters in the Medical line of the Army, but the reason for my mentioning the above Gentlemen are, that I have the highest opinion of them - and have had it hinted to me that the new arrangement

might

might possibly be influenced by a spirit of party out of doors, which would not operate in their favor. - I wish add no more than that I am

With the most perfect resp<sup>t</sup>.

Dear Sir

G<sup>e</sup> Washington

Letter from George Washington to the Honorable Joseph Jones, Esq., written at Army headquarters in Bergen County, New Jersey, September 9, 1780.

General George Washington's letter to Congressman Joseph Jones recommends Doctors Craik and Cochran for continued service in the Army's Medical Department. The Department was being reorganized as a result of continued high rates of illness, lack of supplies, and professional jealousies between physicians. This letter, written thirteen months before the British surrender at Yorktown, indicates that General Washington "ha[d] nothing more at heart, than the health of the troops."

# MILITARY MEDICINE

HEAD QUARTERS, PEER-KILL,

## GENERAL ORDERS

For the ARMY under the Command of Brigadier General M'DOUGALL.

**T**HE Rank and File of each Company will be equally divided among the Sergeants; who are to take a Roll of their Division or Squad, and be answerable that the Arms and Clothes of the respective Men given to them in Charge, be kept clean and in good Order.

A Copy of the Roll, with the Serjeant's Name, who has Charge of the Men, will be delivered to the Captains, or Commanding Officers of the Companies; and they are to furnish the Field Officers of their Regiments with another Copy of the Roll of the Companies, in the Order they receive it from the Sergeants.

The Troops will be regularly messed, Six in each Tent, and the Roll of Duty taken for each Regiment, by beginning with one Man out of each Tent of a Company, then a Second, and a Third, &c. till the Men in each Tent and Company are enrolled in this Order, which will always take them nearly equal out of each Tent, or Mess for Duty, and leave some of their Comrades to take Care of their Clothes, cook their Victuals, and prevent either from being stolen, as well as leave sufficient Room for each Mess, in every Tent.

The Colonel, or Commanding Officer of each Regiment, will order a Copy of this Roll to be delivered to him; the Men paraded by Messes, opposite to their Tents, and cause the Roll of each Company to be called in his Presence, that he may be certain of these Orders being carried into Execution, which are so advance of the Service, and the Comfort of the Troops. He shall answer for the Execution of these Orders in his Corps; for no Excuse will be admitted.

## INSTRUCTIONS for SOLDIERS in the Service of the UNITED STATES, concerning the Means of preserving HEALTH.

### OF CLEANLINESS.

**I**T is extremely difficult to persuade Soldiers that *Cleanliness* is absolutely necessary to the Health of an Army. They can hardly believe that in a military State it becomes one of the *Necessaries of Life*. They are either too careless to pay any Attention to this Subject, or they deceive themselves by reasoning from Cases, that are by no Means similar. Hitherto they have enjoyed a good State of Health, tho' they paid little or no Attention to such Punishments; hence they conclude, that, tho' in the Army, they shall continue to enjoy an equal Degree of Health, under the like Degree of Negligence: Such reasoning has proved fatal to thousands. They do not consider the prodigious Difference there is in the Circumstances of five or six People, who live by themselves on a Farm, and of thirty or forty thousand Men, who live together in a Camp. The former chiefly subsist on vegetable Food; they lodge warm and dry, and they breathe in pure Air, which is not contaminated by noxious Vapours: The latter in general subsist too much on animal Food; they sleep frequently on cold and damp Beds, and they breathe in foul Air, that is constantly injured by the very Breath of a Multitude; and is frequently rendered much more dangerous by the Stench and Exhalations that arise from putrid Bodies. The Air is injured, as I have just said by the Breath of a Multitude and the perspirable Matter that comes through the Pores of the Skin helps to extend the Disorder. But the Blood and Offals of Cattle that are killed near the Camp, with the different animal Substances that are daily thrown there by the Soldiers themselves, must soon fill the Air with a pestilential Smell, unless they are immediately removed or covered sufficiently deep. When the Soldier pours out Water, in which Pleth has been boiled; when in a peevish Mood he throws away Part of his Ration, because it is too much roasted, or because it is not roasted enough; or even when he throws away Bones that are not well picked; he seldom considers that such Things must soon become putrid, and that he is sowing the Seeds of Disease and Death for himself or his Companions. The Soldier should burn his Meat rather than throw it away: History informs us that great Armies have followed this Rule. Soldiers are not supposed to be acquainted with the Art of preserving Health; they are little versed in Books; but, to the Honour of American Soldiers, it is allowed that no men in Christendom of the same Occupation are so well acquainted with their Bibles: Let them, once more, read the History and Travels of the Children of Israel while they continued in the Wilderness, under the Conduct of Moses; and let them consider at the same Time that they are reading the History of a great Army, that continued forty Years in their different Camps, under the Guidance and Regulations of the wisest General that ever lived, for he was inspired. In the History of these People, the Soldier must admire the singular Attention that was paid to the Rules of Cleanliness. They were obliged to wash their Hands two or three Times a Day. Foul Garments were counted abominable; every Thing that was polluted or dirty was absolutely forbidden; and such Persons as had Sores or Diseases in their Skin were turned out of the Camp\*. The utmost Pains were taken to keep the Air in which they breathed, free from Infection. They were commanded, to have a Place without the Camp, whither they should go, and have a Padale with which they should dig, so that when they went abroad to ease themselves, they might turn back and cover that which came from them†.

Besides these general Regulations, it is also necessary for the Preservation of Health, that every Soldier be particularly attentive to his own Person. The Straw on which he sleeps should be frequently dried; and he should never lie on damp Ground, when he can get Hurdles, Bark, Boards, Leaves, or any other dry Substance to put under him. A Soldier should change his Shirt and Stockings once every two or three Days: Though his Stock of Linen is small, a Shirt is soon washed. Little Attention is due to the Colour, provided it be clean. Women are never wanting in a Camp for such Offices. A Man is seldom aware of the Quantity of noxious Matter that comes through his own Skin and is deposited on his Shirt; but if he takes up a Shirt that has been worn a few Days by another Person, he is frequently offended by the disagreeable Smell.

There are some of the Reasons why CLEANLINESS of every Kind is necessary towards preserving Health in an Army: They are Reasons which every Soldier may understand; but should he neglect to regulate himself accordingly, the Regimental Surgeon will doubtless attend to the Neglect, and his Officers will see that he does his Duty. For every Soldier by his Neglect not only endangers his own Life, but the Lives of his Companions. Nature, the God of Nature, has commanded, that men who live in Camps should be cleanly: Whoever proves too obstinate, or too slothful to obey this Command, may expect to be punished with Death, or suffer under some dangerous Disease.

\* Num. 5. 1.

† Dent. 23. 12.

W.

George Washington,  
*Instructions for Soldiers in the  
Service of the United States,  
Concerning the Means of  
Preserving Health.* Fishkill,  
New York, 1777.

General George Washington issued this broadside to emphasize the importance of cleanliness as a means of preserving health. Citing the biblical example of the "army" of Israelites under the command of "general" Moses, Washington indicates that his soldiers, like Moses' soldiers, should wash, stay dry, and frequently change their clothes and bedding in order to prevent disease.

# MILITARY MEDICINE

"Enrolled. An Act to Reorganize and Promote the Efficiency of the Medical Department of the Provisional Army." Signed by Thomas S. Bocoock and Robert M. T. Hunter. October 4, 1862.

This very rare document shows the rank and financial compensation of medical officers in the Army of the Confederate States of America. Signed by the leaders of the Confederate House of Representatives and Senate, the document shows that medical officers' pay was equivalent to that of men of similar rank in the Confederate cavalry.

*Enrolled, An Act to reorganize and promote the efficiency of the Medical Department of the Provisional Army. Section first. The Congress of the Confederate States of America do enact, That the rank, pay and allowances of a Brigadier General in the Provisional Army of the Confederate States, be and the same are hereby conferred on the Surgeon General of the same. Section second. Be it further enacted, That there shall be appointed in the Provisional Army of the Confederate States two Assistant Surgeons General, with the rank, pay and allowances of Colonels of Cavalry; one Medical Inspector General with the rank, pay and allowances of a Colonel of Cavalry, and such number of Medical Inspectors not exceeding twelve as the President shall deem expedient, with the rank, pay and allowances of Lieutenant Colonels of Cavalry. Section third. Be it further enacted, That there may be appointed to each Army in the field a Military Department, one Surgeon and one Medical Director, who for the time he occupies shall be entitled to the rank, pay and allowances of a Lieutenant Colonel of Cavalry; that there may be assigned to each division one Surgeon as Division Surgeon and to each Brigade one Surgeon as Brigade Surgeon and two Assistant Surgeons for Staff or other duty. Section fourth. Be it further enacted, That to each Regiment or Cavalry or Infantry there shall be assigned one Surgeon with the rank of Major, and two Assistant Surgeons each with the rank of Captain. Section fifth. Be it further enacted, That there shall be entitled and*

*Enrolled. An Act to reorganize and promote the efficiency of the Medical Department of the Provisional Army.*

*House of Representatives*  
Sept 26, 1862

*Senate*  
Sept 29, 1862

*Read first time in Senate.*  
Oct 8, 1862

*Read third time and passed with amendments.*  
James H. Nash  
Secretary

*House of Representatives*  
Oct 3, 1862

*Amendment agreed to.*  
R. C. Dixon  
Clerk.

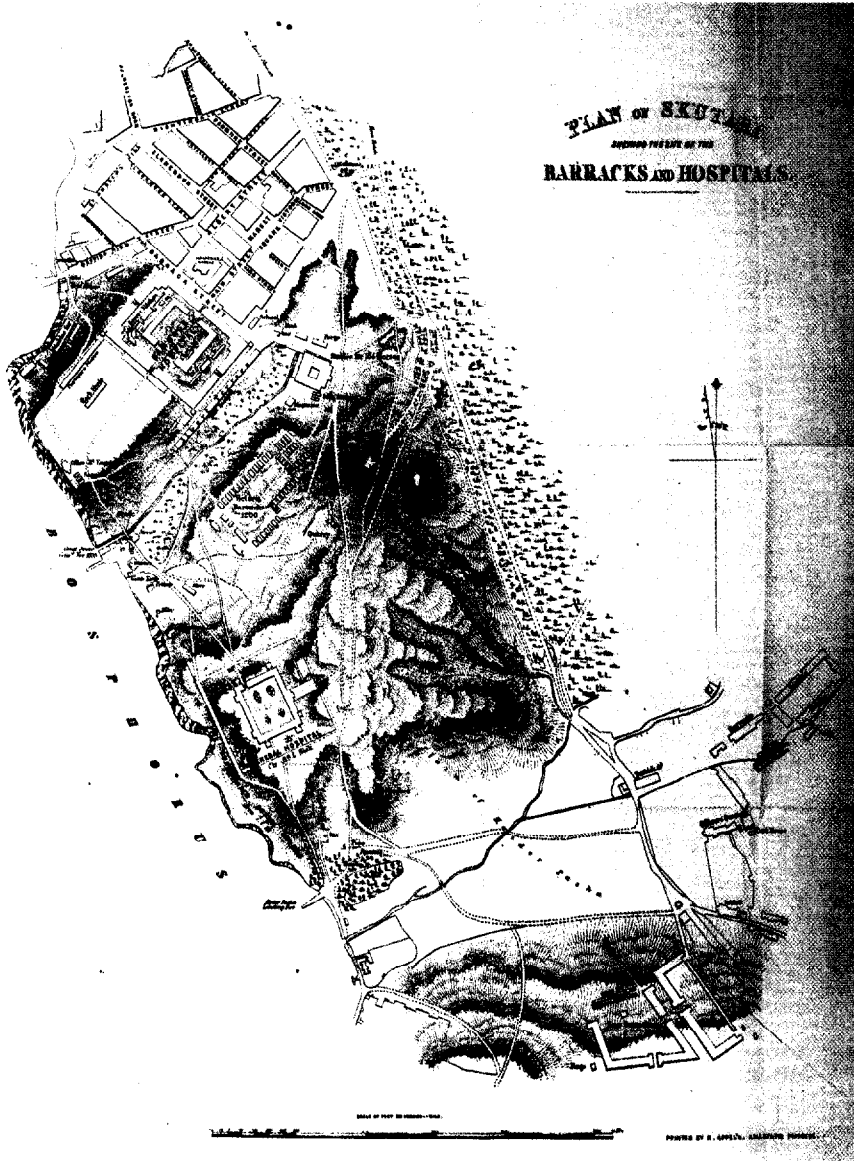
*Prove that this bill originated in the House of Representatives.*  
R. C. Dixon  
Clerk.

*mutated into service, an Infirmary Corps of able bodied men, to be composed of fifty men to each Brigade of an Army in the field, and said Infirmary Corps shall be organized into companies of fifty and officers with one First Lieutenant and one Second Lieutenant, two Sergeants and two Corporals, and paid in like manner as Commissioned Officers, Non-Commissioned Officers and Soldiers of the Confederate Service. Section sixth. The appointments of a medical officer of the regular Army to any office created by this act shall not affect his rank in the regular Army.*

*Th. S. Bocoock*  
Speaker of the House of Representatives

*R. M. T. Hunter*  
President of the Senate

The first hospitals in Western Europe were essentially almshouses, providing refuge for the sick and the poor. In the 19th century, in response to population increases, there was a notable growth in the number of hospitals. By 1800, new anatomical and clinical approaches to medicine had developed and the hospital gradually ceased to be primarily a site of charity, care, and convalescence. The "clinic" became central to medicine as the principle site for bringing laboratory research and bedside observation together.



Nightingale, Florence (1820-1910). *Notes on Matters Affecting the Health, Efficiency, and Hospital Administration of the British Army, Founded Chiefly on the Experience of the Late War.* London, 1858.

This rare copy of *Notes* is considered to be one of the most significant printed reports on wartime hospital organization and administration, yet it is probably Nightingale's least known work. Prepared at the request of the British Secretary of State for War, the book includes an account of Nightingale's experience in the Crimean War and details her recommendations for the improvement of hospital administration and sanitation.

Der Pesthof

eröffnet hier mit fast achthundert Armen, Erbarmt dich Hamburg nicht, so wird es Gott erbarmen.



Der Pesthof. Hamburg, 1746.

This broadside is one in a series of appeals, written in verse, to encourage contributions for the construction of a new hospital in Hamburg, Germany. The Hamburg Plague Hospital had become a municipal hospital and poorhouse, and its resources were stretched to the limit. The broadside shows the hospital's severe over-crowding, as well as the variety of cases being treated at one time. In the background, mentally ill patients are shown housed in cells. In the foreground, a patient suffers from elephantiasis and a surgeon performs an amputation.

Was ist es, O Leser! will in einem Witz die Mien / Wie Jammer und der Mitleid auf Erden sein / So wachst du es hier auf diesem Witz die Mien / ...

Was ist es, O Leser! will in einem Witz die Mien / Wie Jammer und der Mitleid auf Erden sein / So wachst du es hier auf diesem Witz die Mien / ...

Was ist es, O Leser! will in einem Witz die Mien / Wie Jammer und der Mitleid auf Erden sein / So wachst du es hier auf diesem Witz die Mien / ...

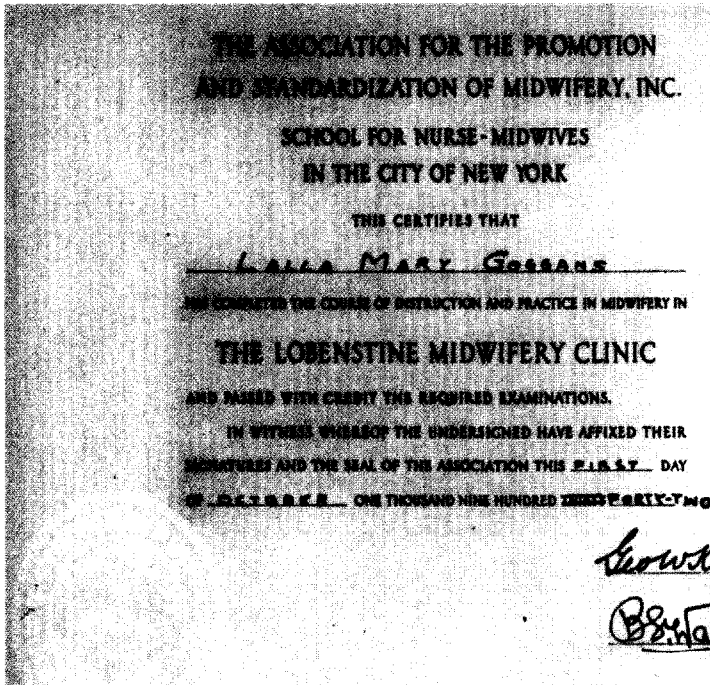
Was ist es, O Leser! will in einem Witz die Mien / Wie Jammer und der Mitleid auf Erden sein / So wachst du es hier auf diesem Witz die Mien / ...

Philipp Hinrich Sten 1746





# MIDWIFERY



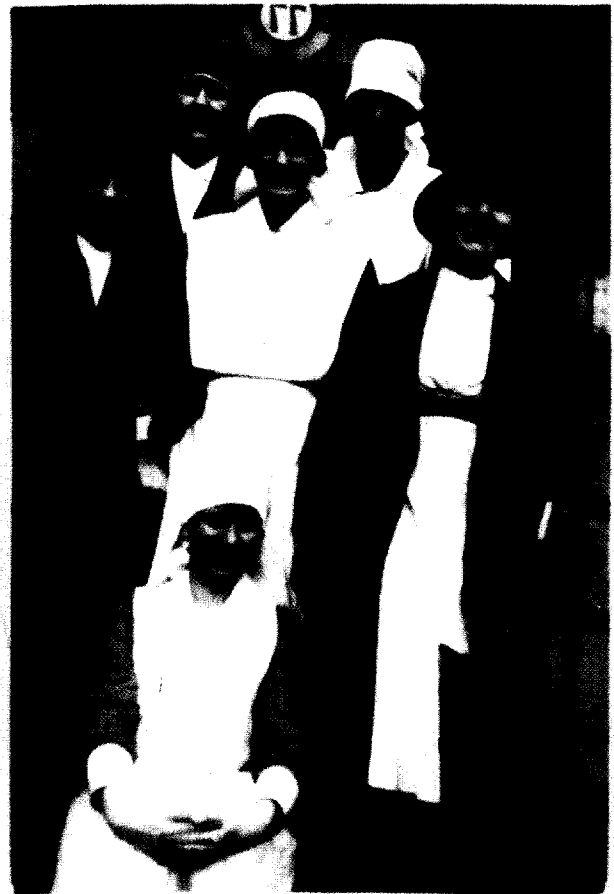
This diploma certifies that Lalla Mary Goggans successfully completed midwifery training in 1942. Goggans' early work was with the granny midwives in West Florida.

American College of Nurse-Midwives Archives (1946-1976).

These items - a diploma and photograph - are from the archives of the College. The College is a professional organization representing certified nurse midwives practicing in the United States and internationally. It has established programs in many underserved areas of the developing world to improve maternal-child health care.

" . . . Out in the tall and uncut trees of West Florida . . . they could not read or write, yet they did the very best they could . . . And while I'm sure that many babies were delivered into hands that were not sterile, there's one thing I am sure of, and that is that every baby was received into loving hands."

- Lalla Mary Goggans, speaking of the Florida granny midwives.



# CHILDREN'S HEALTH

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Until the latter half of the 19th century there was no distinction made between medical care for adults and children. For the most part, children of the poor had little or no access to medical attention. Epidemics of plague, measles, smallpox, scarlet fever, chicken pox, diphtheria, and other acute febrile illnesses took an especially heavy toll on the young. In America, in the years following the Civil War to the turn of the century, the subject of child health became a public health issue. In 1912, the Children's Health Bureau was created, marking the entry of the federal government into the general field of child health care. By 1931, when the American Academy of Pediatrics held its first meeting, the results of pediatric and scientific research had raised the general standards of child health care in America and lowered the rate of infant and child mortality.

## Scæuolæ Sammarthani PAEDOTROPHIÆ LIBRI TRES.

AD

*HENRICVM III. GALLIÆ  
ET POLONIÆ REGEM.*



LVTETIÆ,

Apud Mamertum Patiffonium, Typographum  
Regium, in officina Rob. Stephani.

M. D. LXXXIIII.

CVM PRIVILEGIO.

Sainte-Marthe, Scevole de. (1536-1623) *Paedotrophiae Libri Tres*. Paris, 1584

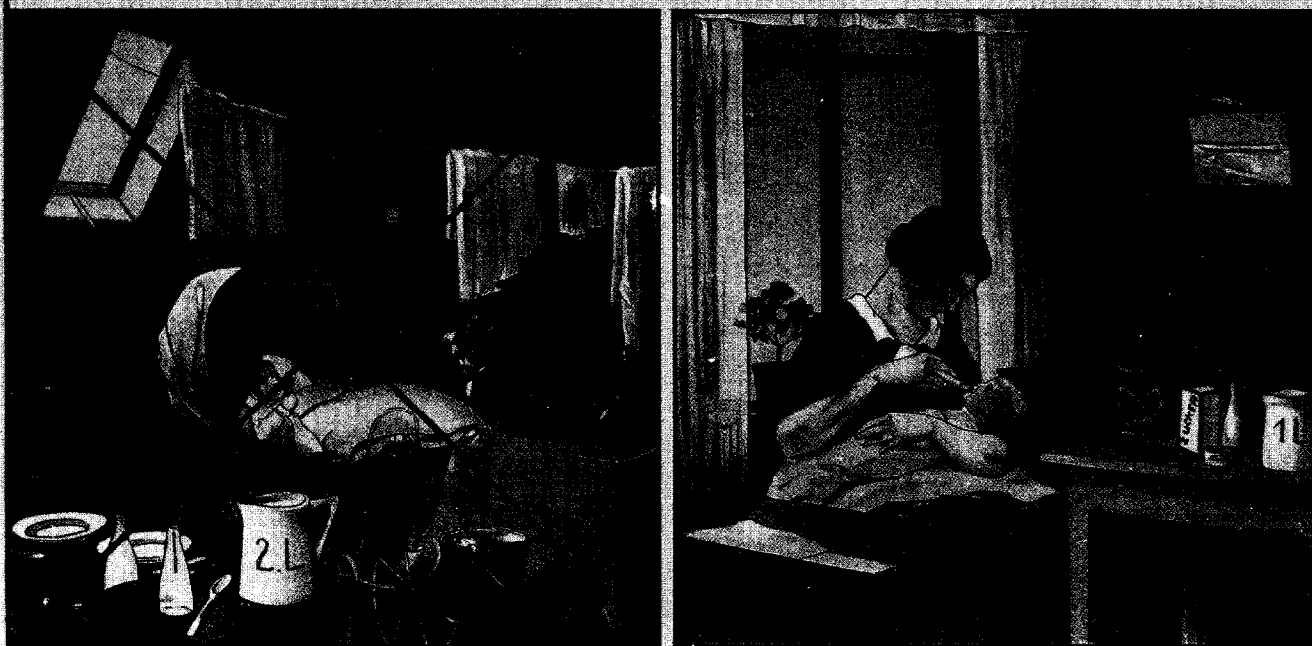
This book, the first edition of a didactic poem about the care and feeding of children, was written by the poet Sainte-Marthe after his infant son survived a serious illness. The first part of the poem deals with prenatal care, the second with infancy, and the third with the common diseases of childhood.

# CHILDREN'S HEALTH

Langstein-Rott, Atlas der Hygiene des Kindes. 3. Auflage

Tafel 85.

## Ursachen der Verdauungskrankheiten, besonders des Brechdurchfalls.



Überfütterung mit Kuhmilch, mangelnde Reinhaltung von Flasche und Sauger, unrichtige Pflege und Überhitzung führen zu Verdauungskrankheiten, besonders zum tödlichen Brechdurchfall. Sauberkeit bei der Pflege und Ernährung, sorgfältige Abmessung der Nahrung nach Art und Menge schützen das Kind vor diesen Krankheiten.

Illustration und Druck: Wilhelm Christ, Berlin 1922.

*Atlas der Hygiene des Kindes.*  
Berlin, c. 1922.

This illustration is one of ninety-eight plates designed as a pediatric care teaching aid. The graphs, photographs, and illustrations, drawn by contemporary artists, give practical information and guidance to mothers and other child-care providers. These messages are conveyed through images, with minimal commentary. These colorful plates are examples of early directives on "modern" child-care in Germany after World War I.

# CHILDREN'S HEALTH

IN 122

CLASS ADDRESS "MUSEUM, NEW YORK"

## THE AMERICAN MUSEUM OF NATURAL HISTORY

77TH STREET AND CENTRAL PARK WEST  
NEW YORK CITY

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GEORGE K. HENNING, M.D., LL.D., RESEARCH ASSOCIATE IN MEDICAL  
ANTHROPOLOGY

July 10, 1931.

Dear Dr. Frank:

I am leaving in August for two years' field work among the primitive peoples of New Guinea. I am most anxious to get from students of child psychology as many suggestions and criticisms as possible before I set out, as I shall be isolated from all publications and discussion during most of the next two years. Robert Lind has suggested to me that you might be willing to give me some leads which you feel could be profitably investigated among primitive children.

In my article on "The Primitive Child" in the Handbook of Child Psychology, I have discussed some of the lines of research which suggest themselves from the standpoint of conditions in primitive society. I have also made a brief statement of the limitations inherent in any such investigation. I am very much in need, however, of suggestions from psychologists, psychiatrists, and other workers in the field. The exigencies of field work leave very little time for the formalization of problems. Criticisms of methods which I have used in previous researches would of course also be of the greatest value to me.

I shall be very deeply appreciative of any suggestions or criticisms which you may find time to give me.

Very sincerely yours,

*Margaret Mead*

Assistant Curator of Ethnology

Dr. Lawrence K. Frank,  
Ashland, New Hampshire.

MM:RM.

Letter from Margaret Mead to Lawrence K. Frank, July 10, 1931.

The influence of Freudian psychoanalytical theory on American anthropology resulted in the growth of culture and personality studies in the 1920s and 1930s. In this period, anthropologist Margaret Mead carried out her now famous studies in Samoa and New Guinea, in which she examined the enculturation processes by which children are brought into adulthood.

In this letter, Mead writes to Lawrence K. Frank, requesting guidance with her proposed research among the "primitive" children of New Guinea. Frank was a leading figure in child psychology and in the forefront of the movement in the 1920s and 1930s to establish child-study institutes in the United States.

From the Lawrence K. Frank Papers, 1914-74.

## CHILDREN'S HEALTH



These photographs and comments come from an unpublished manuscript, "How Your Child Develops Through Play," written by Lois Meek Stolz in 1940. An early pioneer in the child development movement, Stolz advanced a holistic approach to the socialization of children in the belief that understanding children's feelings, motivations, and actions was key to effective childrearing.

From the Lois Meek and Herbert Rowell Stolz Papers, 1917-1984.

"If children can share in getting ready for a party or in helping to serve guests, they will enjoy the task and feel they are a part of the social gathering."

- Lois Meek Stolz  
(1940)

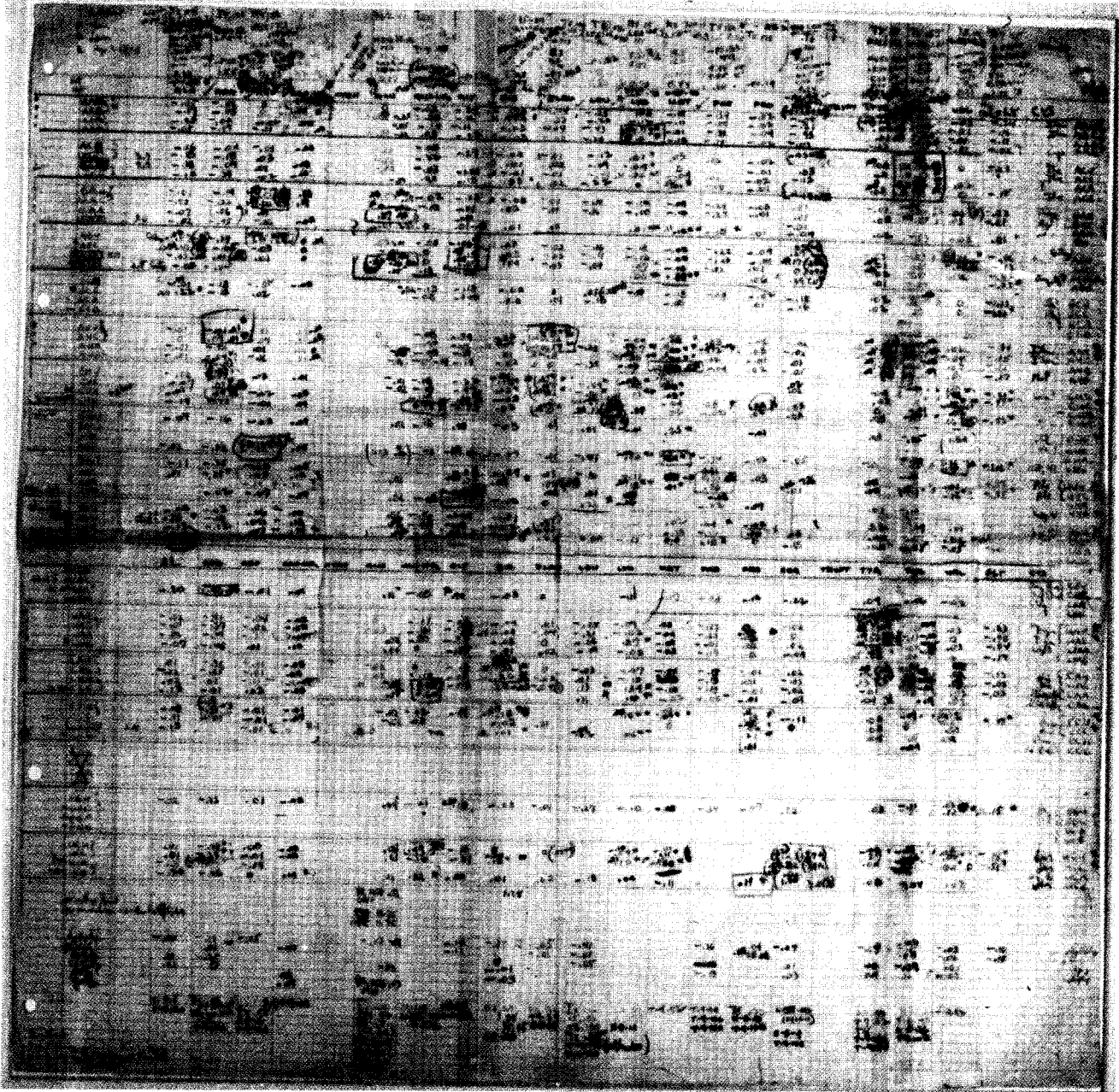
"We can understand much about what a child is thinking and feeling from the pictures he paints. Every child should have the opportunity to express himself with paints . . ."

- Lois Meek Stolz  
(1940)



# GENETICS

Many illnesses are caused by a defect in a single gene: a single segment of the hereditary material or DNA. Genetic techniques are already used to diagnose and treat such disorders. In the late 1990s we are witness to one of the great adventures of human biology - The Human Genome Project. The sequencing of the human genome is the equivalent of exploring the fine structure of matter. The Human Genome Project aims to identify the position of every gene in every chromosome, and the order of every one of the millions of base pairs. The National Institutes of Health in Bethesda is one of the leading laboratories in the world carrying out this research.



Nirenberg, Marshall W. (1927-- ). Notes on the Genetic Code, ca. 1964-1966.

In 1968 Marshall W. Nirenberg shared the Nobel Prize in Medicine or Physiology with Robert W. Holly and Har Gobind Khorana. Nirenberg's work on the genetic code involved description of the mechanisms by which protein synthesis was directed in living cells. Deciphering the genetic code has allowed us to understand for the first time how life processes in all living things are governed.

# GENETICS



King Gustav of Sweden presenting the Nobel Prize in Medicine or Physiology to Marshall W. Nirenberg. 1968.

"I thought this was really extraordinary, that I'd look out the window and I'd see a tree and maybe a squirrel sitting in the tree, and I'd think that the instructions in the plant and the squirrel are really the same . . . I thought that was just beautiful. I knew all about Darwin and evolution, but this was such a striking confirmation of the similar mechanisms being operative in different forms of life. That had a big emotional impact on me."

- Marshall W. Nirenberg. Unpublished interview with Dr. Ruth Harris of the NIH Historian's Office. Fall 1995.



Co-workers Heinrich Matthaei and Marshall Nirenberg in the laboratory. c. 1961.