

SOUNDS OF MEDICINE

OPERATION AND STETHOSCOPE SOUNDS FOLKWAYS RECORDS FX 6127

SI-FP-FW87-D C -00074
Sounds of Medicine

SIDE I

OPERATION —

Supervised surgical operation on a small boy
with a cyst in his neck

DESCRIPTIVE NOTES ARE INSIDE POCKET

SIDE II

STETHOSCOPE SOUNDS

- Band 1: Heart Murmurs and Lung Sounds —
A Woman with
Rheumatic Heart Disease
Band 2. Same Woman
Band 3. Same Woman
Band 4. Normal Heart and Lung Sounds
Band 5. Same
Band 6. Same

- Band 7. Heart Murmurs and Lung Sounds —
A Woman with Valve Disease of the
Heart before Surgical Operation

- Band 8. Same

- Band 9. Normal Sounds

- Band 10. Breath Sounds

- Band 11. Sounds of the Bowels —
A Normal Hungry Man Smoking a
Cigarette Before Dinner

- Band 12. Heart Sounds —
A Man with Inflammation of the
Heart due to Active Rheumatic Fever

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43 W. 61st ST., N.Y.C., U.S.A.

SOUNDS OF MEDICINE

SOUNDS OF MEDICINE

OPERATION BODY SOUNDS

SIDE I

Operation - Supervised surgical operation on a small boy with a cyst in his neck

SIDE II

Stethoscope Sounds

Band 1. Heart Murmurs and Lung Sounds -
A Woman with Rheumatic Heart Disease

Band 2. Same Woman

Band 3. Same Woman

Band 4. Normal Heart and Lung Sounds

Band 5. Same

Band 6. Same

Band 7. Heart Murmurs and Lung Sounds -
A Woman with Valve Disease of the Heart before Surgical Operation

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Band 11. Sounds of the Bowels - A Normal Hungry Man Smoking a Cigarette Before Dinner

Band 12. Heart Sounds - A Man with Inflammation of the Heart due to Active Rheumatic Fever

OPERATION RECORD

Each of us can anticipate having a surgical operation some time during his life, but the event has been unnecessarily clouded with mystery and drama. This tape recording on a typical routine day in a modern hospital operating room presents an operation for what it is. An event important to the welfare of the individual but not a dangerous tour de force with flashing scalpels and great psychological tension.

The patient is a small boy who, due to an abnormality in growth has had a cyst in his neck since birth. The cyst is about the size of a hen's egg. If left in position, it is likely to become infected or to enlarge and block the windpipe or the large arteries passing to the brain. The idea of the operation is to cut out this undesirable growth without injuring important tissues closely adjacent to it.



THE BARBER.

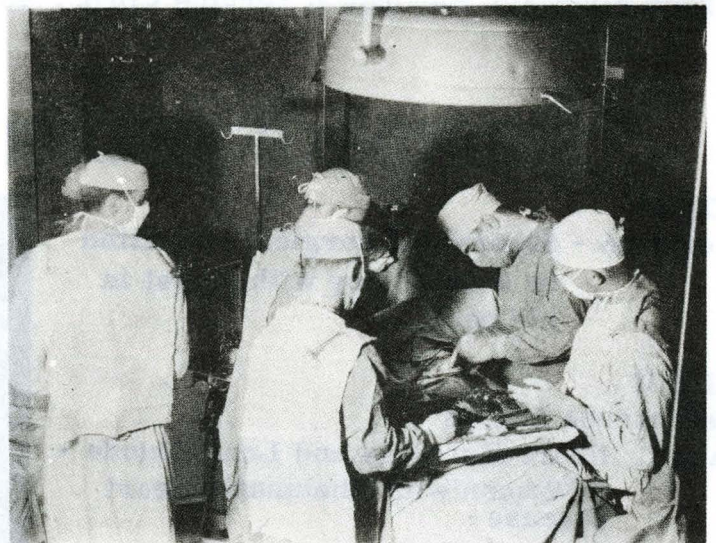
A young surgeon is performing the operation under constant supervision from an older more-experienced man who has done this type of procedure many times before. The patient is deriving benefit from the experience of two surgeons, but at the same time the seasoned experience of the older physician is being relayed to the youthful medic in a teacher-apprentice tradition basic to the advance of medicine. The relaxation of these surgeons may shock the layman accustomed to the Hollywood version of an operating room, but relaxation and humor are far better than tension in safely caring for a human in this situation.

The child is asleep under gas anesthesia. The skin over the cyst has been cleaned and draped with towels. Immediately after the incision is made in the side of the neck, the offending cyst is seen by the surgeons. Here the elder man begins to teach

by explaining how the tissues may be safely divided by "spreading and cutting" with a pair of scissors. He knows the exact position of this type of cyst in relation to the carotid arteries. The idea is to remove the cyst from its buried position between the arteries down to the throat lining beneath the jaw. The operation proceeds carefully but on occasion the young surgeon is needed in a light manner about "knowing anatomy" or about "picking and scratching" the tissues in the wound when he is somewhat hesitant about making the sharp precise cuts which the body can knit in the easiest way. Later the enthusiasm of the artisan is detected in talk about a serious operation being "nice" or "lots of fun." It is also satisfying to know that a successful operation here will result in a complete cure in the patient's disease.

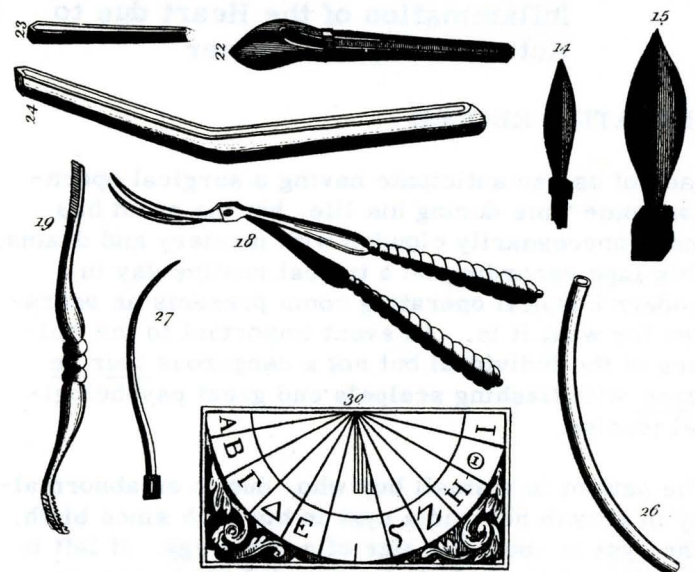
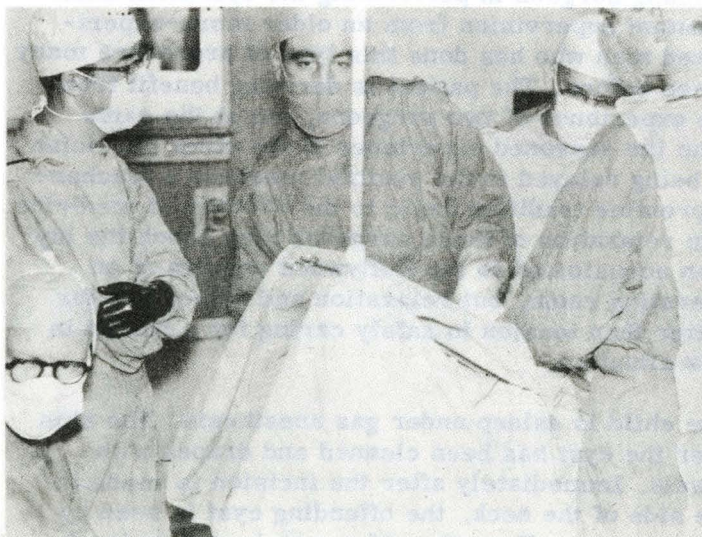
As the removal of the cyst proceeds deeply into the neck, problems arise. The young surgeon is admonished to remain close to the cyst with his cuts in order to avoid injury to normal structures. The illumination in the deep wound is poor, and the spotlight must be adjusted constantly. At one point, fragile tissue of the cyst is broken. The experienced surgeon knows that this is actually a minor problem and occurs frequently during this type of operation. The deeper areas of the wound must be exposed with retractors which pull the outer tissues to one side.

Finally the deepest limit of the cyst is exposed and the growth is removed completely. The surgeons decide that a stitch ("a stick-tie") should not be placed deep in the wound because the advantage of closing the communication between the cyst and the throat is outweighed by the danger of introducing a needle and thread near the arteries. Consequently a small piece of rubber mem-



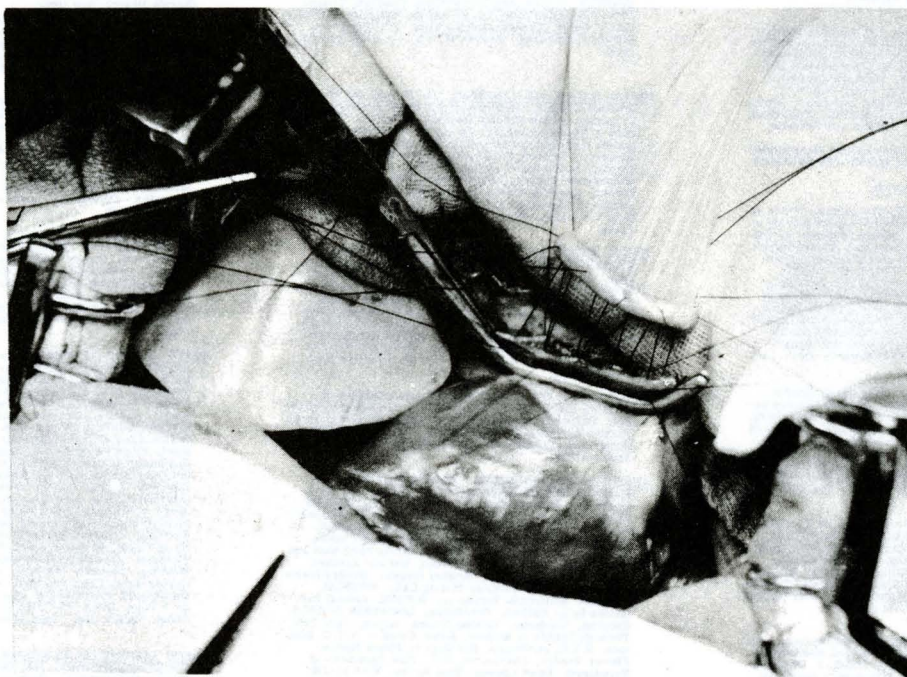
brane is placed in the wound for a few days while the body closes the communication with scar tissue. Details of the repair of the wound are discussed, and the younger man is left to close the defect by stitching tissues together just beneath the surface of the skin.

The child had no difficulties after operation and left the hospital in three days. There is no possibility of the cyst regrowing. So, with the expenditure of four days of the child's life, a little pain, and the concerted efforts of numerous doctors and nurses, a dangerous growth has been removed and the possibility of serious infection or strangulation avoided. This is the only valid drama of a surgical operation.



Surgical Instruments, &c. at Pompeii.

Engraved for the Encyclopædia Londinensis, 1725.



STETHOSCOPE SOUNDS

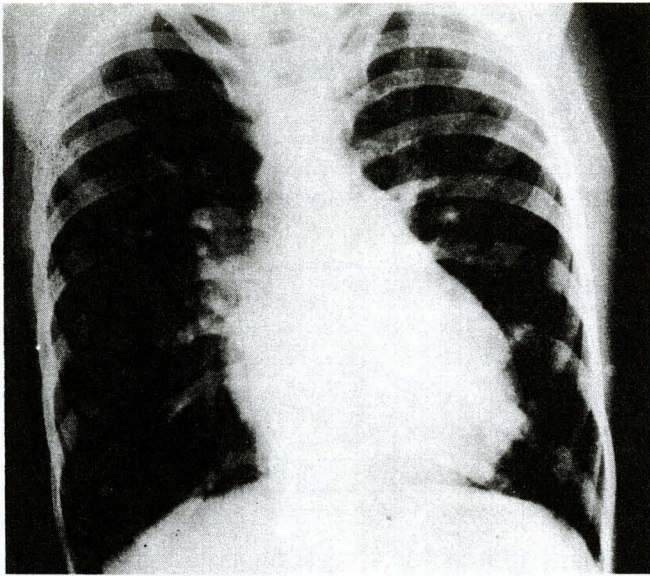
It is intriguing to think that the internal organs, hidden in darkness through the years of our lives, function automatically and efficiently day and night to preserve the welfare of the individual as he thinks man's thoughts unaware of their presence. Certain organs produce sounds in their work. Basically the sound is produced by the motion of some fluid or gas through the channels of the organ. In every instance these sounds may be heard with the stethoscope, and variations in the quality of the sounds are useful to the physician in diagnosing disease.

The "lub-dub" sound of the normal heart beat is produced by the opening and then the closing of the thin tissue valves of the heart. Normally blood passes through the heart in silence because of the smooth contour of the cardiac chambers. When this contour is not smooth due to a disease process, or when abnormal amounts of blood must pass through the heart due to sickness, the vibration of this abnormal eddying process is transmitted to the surface of the body as a swirling noise or murmur superimposed upon the normal valve sounds. Such a murmur, due to rheumatic inflammation of a heart valve, is heard in this first patient here. Because of overwork, the heart beat is irregular. In the last patient the heart muscle is actively inflamed and is able to do its work only by beating at a very rapid rate.

Air moves in and out of the lung passages with each breath to produce a sound signal. In the presence of pulmonary inflammation or congestion, the air must pass through fluid which has accumulated abnormally in the air passages. The resultant bubbles of "rales" which have characteristic features of pitch. Alterations of tone and intensity in the breath sounds indicate the presence of consolidation of lung tissue in pneumonia or the cavities produced by tuberculosis.

As food and gas are transferred down the bowel passages, a gurgling type of sound may be audible. The character of this sound indicates how active or silent the bowel motion might be. The presence of obstruction may be diagnosed when the sounds are abnormally high in pitch due to increased pressure within the bowel or are overly active as the bowel attempts to force intestinal contents past the obstruction. This abnormal type of sound is heard when the bowel is obstructed due to adhesions or cancer. Equally ominous is the complete silence of the bowel when peritonitis is present.

Tape recordings from a number of patients represent here a variety of such alterations. Although the sounds have been there during all of man's existence, the historical evolution of techniques for eliciting them makes a fascinating background to the prosaic thumping and prodding of the modern physician.



The ancient Greek physician, Hippocrates, described a sound of "bubbling vinegar" which could be heard in the presence of an infection in the pleural space surrounding the lung. Although the sounds were known to exist and were known to be useful to physicians after 800 B.C., the listening for them did not acquire much vogue in the medical profession because it involved applying an ear directly to the patient's body. Entirely aside from the immodesty required for such an act, the extreme body filth of the average patient has been well documented by medieval writers as a deterrant to such a method of examination. It remained for a French physician, Rene Theophile Hyacinthe Laennec, to effect a compromise between the physician's sensibilities and the patient's welfare by inventing the stethoscope in 1816. This enabled the physician to stand at some distance but listen to the sounds of the internal organs.

Current rumor had it that Laennec was forced into the discovery by an immediate need. Presented with a female patient with considerable embonpoint requiring examination in intimate areas of her chest, he was immediately reminded of a current children's game -- listening with the ear palced against one end of a board to hear a pin scratching at the other end several feet distant. In his own words:

"... The age and sex of the patient forbidding the type of examination of which I have just spoken, immediate auscultation, I happened to recall a familiar fact of acoustics, namely that if one places his ear at the end of a piece of timber, he can hear very distinctly the scratch of a pin at the other end. It occurred to me that I might take advantage in the case with which I had to deal, of this physical property. I took a quire of paper, rolled it up tightly, applied one end to the pre-cardial region and listen-

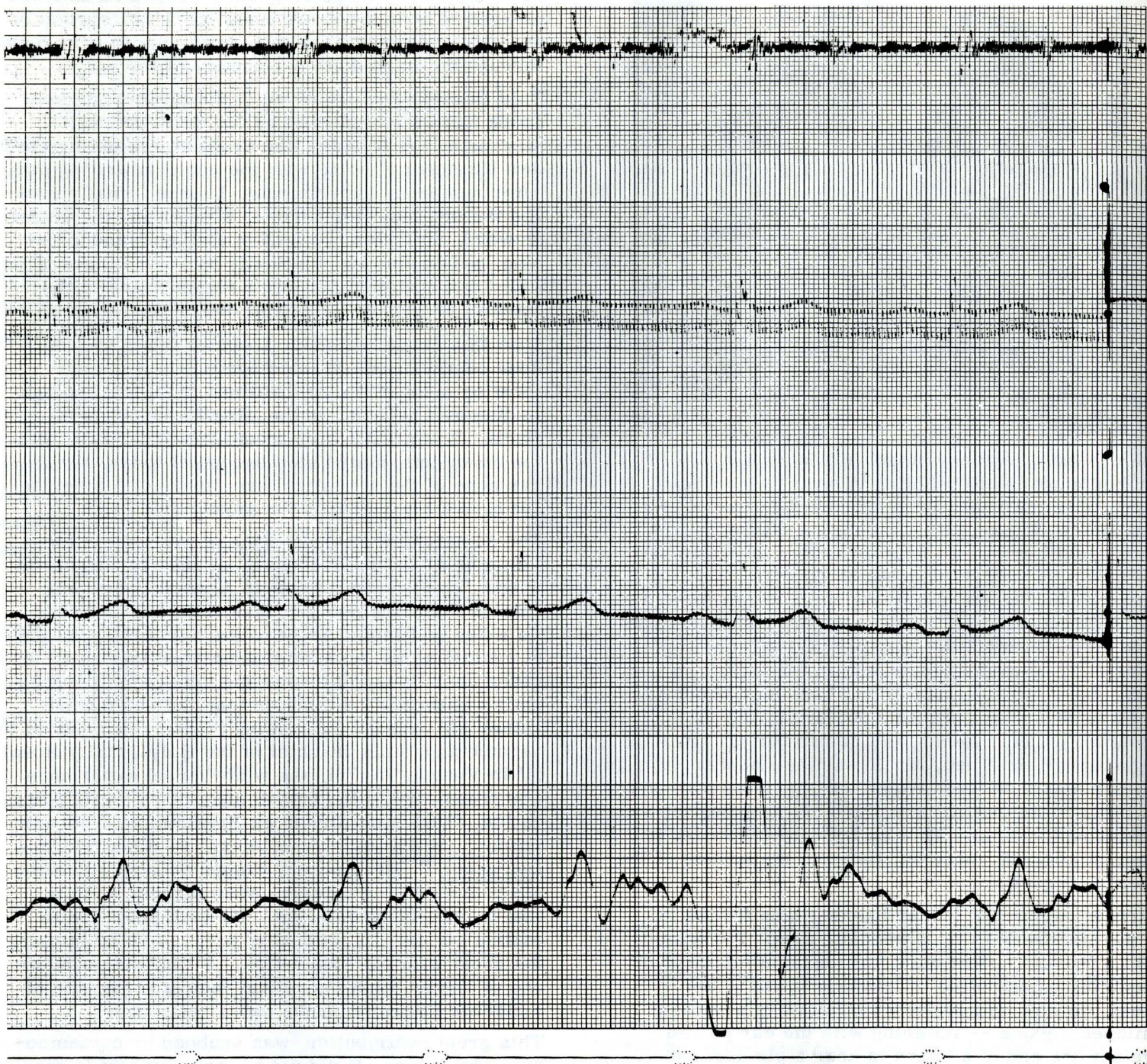
ed at the other. I was as greatly surprised as I was pleased to hear the heart beats much more clearly and distinctly than I had ever been able to hear them through the immediate application of the ear...."

This little-known prototype of the modern stethoscope has been neglected by the do-it-yourself diagnosticians of today who could be evaluating their own illnesses at home with the use of a writing pad. After numerous experiments, Laennec finally evolved the original stethoscope, which was "a cylinder or wood, an inch and a half in diameter and a foot long, perforated longitudinally by a bore three lines wide, and hollowed out into a funnel shape to the depth of an inch and a half at one of the extremities."

With this crude cylinder, Laennec made tremendous contributions to the diagnosis of disease, forming most of his publications from the findings in diseased patients in the charity hospitals of Paris. It is a little step from his wooden tube to the chromium-plated stethoscope of today, which has none of the acoustical excellence of his device but is more portable in the physician's bag.

The common medical practice of percussion (or "thumping" on the chest) had an equally checkered origin. Its inventor, Leopold Auenbrugger, was born in 1722, the son of a tavern keeper in Graz. As a boy he became adept at the hostler's practice of evaluating the amount of wine contained in an oaken cask by tapping down the side of the barrel until a change of percussion tone indicated wine rather air beneath the tapping finger. He went on to become physician-in-chief of the Holy Trinity Hospital in Vienna. In 1761, the wine-barrel experience was translated to the human body in a classic publication, "Inventum Novum ex Percussione Thoracis Humani, ut Sign Abstruso Interni Pectoris Morbos Detegendi." Here Auenbrugger proposed that the chest of a healthy subject, when struck, sounds like a cloth-covered drum. He then proceeded to outline his special method of percussion by striking the chest with the finger-tips. A muffled sound or one of higher pitch than usual indicated the site of a disease condition in the underlying lung.

This great contribution was snubbed by contemporary physicians. It did not become current in medical examination until after 1808, when the French physician, Corvisart, popularized the technique and gave Auenbrugger full credit for the discovery. Unfortunately Auenbrugger had died one year previously in relative obscurity. It is interesting to note that he had shown considerable interest in the music of the period. At the behest of the Empress Maria Theresa, he wrote the libretto of an opera, "Der Rauchfangkehrer" or "The Chimney Sweep", composed by Salieri, but could never be influenced to repeat the performance, always maintaining that "one was enough."



The paper recordings from top down are (a) a sound recording taken with a microphone over the heart. The two heart sounds can be seen. The small one is the first sound which denotes the valves opening as the heart starts to contract. The higher "pip" is the second sound, denoting the valves closing as the heart relaxes. There is no murmur appearing on this tracing. The vibrations are extraneous noise. The limiting factor in this recording is the paper recorder, with a natural frequency of around 45 cps with a high damping coefficient.

(b) the two center tracings are electrocardiograms, which are simply the pips made by the electrical currents passing through the body after being generated by the heart as it initiates its beat. The contraction of muscle starts as an electrical phenomenon and this is the potential associated with heart contraction.

(c) the bottom tracing is a ballistocardiogram, which is a record of the very tiny movements the body makes in recoil to the muscular contraction of the heart.

SCIENCE ON FOLKWAYS RECORDS

FX6007 THE SCIENCE OF SOUND: Demonstrations of acoustic phenomena with an explanatory narration written by scientists and engineers of Bell Telephone Laboratories. How We Hear. Frequency, Pitch, Vibration and Resonance, Intensity, Loudness, Noise Measurement, Masking, Echo and Reverberation, Delay Distortion, Fundamentals and Overtones, Quality, Subjective Tones, Music or Noise, Filtered Music and Speech, Dissonance and Consonance, Music Scales, Vibrato and Tremolo, The Doppler Effect. Produced by Bell Telephone Laboratories Incorporated. Distributed and manufactured by FOLKWAYS RECORDS & SERVICE CORP. 2-12" 33-1/3 rpm long play records.

FX6100 SOUNDS OF FREQUENCY: The purpose of this record is to provide a standard by which record playing equipment can be checked for frequency response and distortion. 78 RPM. . . Frequency test run, square waves; and three variations of music to check longplay phonograph record characteristics. NOTES BY PETER BARTOK. The purpose of this record is to provide a standard by the use of which record playing equipment can be checked for frequency response, and distortion, without equipment other than an oscilloscope and volume indicator. The portion of the record intended for frequency-response measurement provides test signals which are always the same musical distance apart. Accompanying descriptive notes.

FX6101 SCIENCE IN OUR LIVES: Narrated by Ritchie Calder, from the Signet Key Book. Includes Science began, Science terms, Edison effect, Atoms, Agriculture, Food from the desert, Food from the jungle, Millions of men without teaspoons, Rip Van Winkle comes to town.

FX6104 SOUNDS OF SELF-HYPNOSIS THROUGH RELAXATION: an unusual self-help self-improvement documentary recording with Mrs. Lee R. Steiner, Certified Psychologist.

FX6105 THE SOUNDS OF CAMP: the picture of a children's camp painted in the voices and sounds of its children. Recorded at Camp Killoet, Hancock, Vermont, 1958 by Ed Badaeus. Including Riding, Shop, Swimming, Jingle, Before lunch music, Filing into tables, Eating, Party Birthday, Jacks, Dance Class, Baseball, Theatre Backstage, Front porch before lukes leave, Mike reports, Girls after a dance, Ruffery, Last campfire.

FX6106 HANDWRITING ANALYSIS: By Dorothy Sara. Introduction, Direction, Pressure, Size and dimensions, Unknown Qualities, Letters, Style, Dot On I, Crossing Letter T, Loops, Occupations, Signatures, Hooks and Knots, Doodles and Scribbles. Conclusion. Text.

FX6115 THE SCIENCE OF THE BIRD'S WORLD OF SONG: a fascinating documentary study of bird songs and sounds, recorded in Maryland. Birds include: blue jay, crow, peeper, white-throated sparrow, jay, kingfisher, osprey, cardinal, goldfinch, meadowlark, robin, whippoorwill, many others. Notes incl. musical transcriptions. Recorded and edited by Hudson and Sandra Ansley.

FX6120 SOUNDS OF A TROPICAL RAIN FOREST IN AMERICA: As a dramatic presentation, and because enough sounds were available it was decided that the approach would be, for every hour of the day from one to two minutes of sound would be used on the record. Thus in sixteen minutes of play an idealized content was possible in depicting a day to dusk period. Includes: THE DRY SEASON, Cricket and Dove, Violaceous Jay, Black Howler Monkeys, Parrot, Swainson Toucan, as, Great Rufus Motmot, Cicada, Spotted Chachalaca, Great Tanager, Wattled Guan, Red Wattled Curassow, Toucan and Jay, Monkey, Chatter, Chatter, Barettes, Flock of Parrots, Waglers' Tanager, Macaw talk, With Crickets, Crested Guan In Thunderstorm, Chestnut Headed Tanager and Crickets, Crickets and Parrot, Crickets and Mourning Dove, Small Tree Toad, Peepers, Flight of Parrots, Giant Toad (Bufo Marinus), Many Toads, Rain Sequence with Crickets, And Toads, Three Wattled Bell Bird, Black Howler Monkeys, Tree Fall With Screaming, Monkeys, Parrots and Macaw, Tree Toad, and Big Toad.

FX6121 SOUNDS OF THE SEA: Actual SOUNDS of fish species recorded in isolated tanks and at varying depths from 5 feet in sheltered areas of 2,000 fathoms 200 miles out - in tropical waters of the Atlantic and Pacific Oceans. Recorded by the Naval Research Laboratory. INTRODUCTION AND NOTES BY C.W. COATS. Includes, Normal Water noises - Pac, 10' deep - snapping shrimp - toadfish - Atl., 11' water - 5' deep - Atl. - snapping shrimp - croakers - Toadfish - Atl., 20' water - Pac, 12 miles offshore (crabs) - 45' water - Atl. - snapping shrimp - Atl., 45' water; Evening - Atl., 1 1/2 miles out above water - Pac, snapping shrimp - sea robin - croakers, 50' 60' 70' water - Pac, 12 miles out - 48' deep - Atl. - drum fish (bass) - croaker, 600 fathoms down 18 miles out - Pac, croaker family 600 fathoms down - unknown sounds - Pac., 2000 fathoms down, 200 miles out - Pac, Spot fish, Sea robin, (5) Catfish, (400) Croakers, (150) Snapping shrimp, (40) Cancer crabs, Spotted croaker, Black croaker, Croaker and snapping shrimp chorus in open water, Drum fish, and Toadfish.

For Surf sounds, Gulls, etc. see 6161.

FX6122 SOUNDS OF THE AMERICAN SOUTHWEST: recorded in Arizona near Tucson, Cave Creek, Chiricahua Mountains and Rustlers Park. In New Mexico, San Simon Valley and in California, Mandevilla Canyon, Santa Monica Mountains and Lake Pulmar, by Dr. Charles M. Bogert, Chairman and Curator of the Department of Amphibians and Reptiles of the American Museum of Nat. Hist., N.Y. The sounds recorded are those that anyone traveling in the arid portions of southern California, Arizona and New Mexico might hear during a single summer. Includes, Morning doves, mocking birds, woodpecker, owls, rattlesnakes, bob cats, crickets, beetles, toads, frogs, etc. Thunder storm and flashflood. Illustrated Text.

FX6123 VOX HUMANA: recorded in England. Alfred Wolfson's experiments in extension of human vocal range with an Introduction by Dr. Henry Cowell. Includes Female voice in a range of seven octaves, Female duet in vocal sound range, Boy's voice in seven octaves, Four and five octave leaps, Double and multiple stopping by the voice, New registers (male and female voice), Male voice in nine octaves, "String Quartet" for four female voices, and Voice versus instrument.

FX6124 SOUNDS OF ANIMALS: audible communication of zoo and farm animals. These various recorded sounds suggest that just as man has his own special language, so animals have their own special means of vocal communication which help them to solve their own living problems. Includes, 2000: Puma, Lion, Indian Elephant, Rhea, Hippopotamus, Chimpanzee, Peccary, Rhesus Monkey, Rhinoceros, Tiger, recorded by Arthur M. Greenhall. FARM: Chick, Goat, Sheep, recorded by Nicholas Collias.

FX6125 SOUNDS OF SEA ANIMALS Vol. II Florida: This record contains representative or typical underwater sounds produced by several species of fishes and by the sea cow or manatee. RECORDED BY W.N. KELLOGG, OCEANOGRAPHIC INSTITUTE, FLORIDA STATE UNIVERSITY. Includes Snapping shrimp, Toadfish, Trigger Parrotfish, Sea catfish, Single catfish, White grunt, Drumfish, Cowfish, Manatee, One porpoise, Four porpoises, School of porpoises, "School" at 1/2, 1/8, 1/32, and 1/64 speed.

FX6126 SOUNDS OF CARNIVAL: The Midway and Merry-Go-Round Music. Recorded at the Royal American Shows by students of the Chicago Institute of Design. This record is for young and old. It is a documentary of typical sounds nostalgic and true of an American scene. . . The Carnival. Includes the Crowd, Merry-Go-Round, Barker, Outside the fun house, Animal barker, Ferris Wheel, Motordrome barker, Roll-O-Plane, Strange Asiatic barker, Laughing clown, Interviews, and the famous repertoire of merry-go-round music, including Callopie; Over the Waves, Ta-ra-ra-boom-de-er and others. Notes.

FX6127 SOUNDS OF MEDICINE: recorded on location. Contains Operation: Supervised surgical operation on a small boy with a cyst in his neck. Stethoscope Sounds; Heart murmurs and lung sounds - A woman with Rheumatic Heart Disease, Normal heart and lung sounds, Heart murmurs and lung sounds - A woman with Valve Disease of the heart before surgical operation, Breath sounds, Sounds of the bowels - A normal hungry man smoking a cigarette before dinner, Heart sounds - A man with inflammation of the heart due to active Rheumatic Fever.

FX6128 MUSIC OF THE CAROUSEL: 14 examples of authentic merry-go-round music incl. Dampstruts Strutters Ball, Bulboard, Kiss Me Again, Sidewalks of New York, Turkey in the Straw, Our Director, The March of the Bulgarians, School Days, In The Shade of the Old Apple Tree, others.

FX6130 SOUND PATTERNS: Taken out of content these sounds stand by themselves in their uniqueness, and create new auditory dimensions. NATURAL SOUNDS: Wood Thrush - natural speed, slowed down to 1/2 speed, slowed down to 1/4 speed, Crickets - natural speed, slowed down to 1/2 speed, slowed down to 1/4 speed, slowed down to 1/8 speed, Thunder Storm (with toad and bird), Alligator Chorus (American, and one Asiatic), Two Lions (Atlanta Zoo), Monkey (happy), Monkey (same monkey - angry), Tortoise Mating Call, MUSICAL SOUNDS: Musicians Tuning-up, SOUNDS: Animal Imitations by an Eskimo, Heartbeats, LOCATION SOUNDS: Chorch, Honduras, Talking Drums, Africa, Taxi Trip, Through Traffic to Airport, Street Cries - N.Y.C. Line-men, N.Y.C. gardenias, Hot Dogs in Times Square, Flower Vendor, Charleston, 2, C. Co. One Asiatic in Yugoslavia, Dawn Chorus, East Africa, MAN MADE SOUNDS: Jet Flight, Railroad to Atlantic City, Short Wave Radio, Pump Drill, Electronic Feedback -- 7 1/2 inches tape, and 15 inches tape.

FX6136 THE SCIENCE OF SOUND: (Short versions of FX 6007) This record describes and demonstrates various phenomena of sound as an aid to understanding how sound is put to work for the benefit and pleasure of man. How We Hear, Frequency, Pitch, Intensity, The Doppler Effect, Echo and Reverberation, Delay Distortion, Fundamentals and Overtones, Quality, Filtered Music and Speech. Produced by Bell Telephone Laboratories Incorporated. Distributed and manufactured by FOLKWAYS RECORD & SERVICE CORP.

FX6140 SOUNDS OF THE ANNUAL INTERNATIONAL SPORTS CAR RACES OF WATKINS: 1958. The Schuyler, Carrera, Glen Trophy and Grand Prix. Recorded on location by Henry Mandler and Robert Strome. Includes: lining up, practice, winner O'Shea in the victory lap, technical inspection, cars in the races: Maserati, Jaguar, Austin MG's, Porsches, Mercedes, With ill. notes.

FX6141 THE INTERNATIONAL MORSE CODE: A teaching record using the Audio-Vis-Tac Method developed and narrated by Philip S. Gross, Ph.D. Introduction to learning the Code, Using the Sound Symbol, Numbers and the Alphabet, Learning the Numbers, Dictation Lesson #2. With text and Morse Code chart.

FX6151 SOUNDS OF SOUTH AFRICAN HOMESTEAD: Recorded in the Land of the Zulus by Dr. Raymond B. Cowles. Contains DAWN CHORUS: Doves, Thrush, Cuckoo, Weaver, BUSH BIRDS: Hornbills, Doves, Barbet, Shrikes, Monkey, Warblers, Cicadas, Orioles, Bul, Robin, Starling, Biss, Trogon, Drone. LATE AFTER-NOON UNTIL DARK: Partridge, Frog, Bulbul, Cricket, Amphibian chorus, Toads, Frogs, ZULU MUSIC: with guitars, jew's harp, lightning sticks, gourd-and-bow horns, in songs, wedding chants, beer-drink, praises, dances, Accompanying notes and illustrations.

FX6152 SOUNDS OF STEAM LOCOMOTIVES No. 1: Stack Music Sampler, The U.P., C.B. & Q., L.C. & N.W. D.R.G.W. etc. 2-8-2, 4-8-4, 4-12-2, 4-6-0, 4-8-0, 4-8-0-4, 4-8-2, 2-10-2 and switchers 0-6-0, 2-8-0, narrow gauge 2-8-2. These recordings were made by Vinton Wight who wrote the accompanying notes.

FX6153 SOUNDS OF STEAM LOCOMOTIVES No. 2: Stack music sampler edited and recorded by Vinton Wight. Includes: No. 510 switching, No. 4958 Leaving Yards, No. 5116 Climbing to Elevator, No. 5112 Struggling spotting Cars, No. 4958 Returning to Yards with Empty, No. 5344 Simmering on Ready Track, No. 5351 Up to Crossing and Back, No. 5504 Leaving Yards with Train, No. 5355 Passing, No. 5505 Switching at Ashland, No. 5504 Woodlawn Run, No. 5347 and Helper No. 7000 near Pith, No. 5335 Pulling into Yards, No. 5504 Light to Roundhouse, No. 5351 from RH Simmering and Switching.

FX6154 SOUNDS OF STEAM LOCOMOTIVES No. 3: Colorado narrow gauge stack music. "A ride on the train to yesterday." Three Little Engines and 33 Cars. Recorded and with notes by Vinton Wight. Notes.

FX6155 SOUNDS OF THE NEW YORK CENTRAL STEAM LOCOMOTIVES: recorded at Vermilion, Ohio by H.S. Ludlow. Includes Introduction by H.S. Ludlow; Hudson No. 5345; Mohawk No. 3005 - Train 35; Hudson No. 5436 - 20th Cent.; Hudson No. 5220 Local; Hudson No. 5445 - Comm.; Vanderburgh, Niagara No. 6019 The Prairie State No. 203; Pacific Tyor No. 4897 - Train 9; Mohawk and Hudsons with Local Trains, No. 2200 - 20th Cent.; Hudson No. 5235 and other train sounds. In front of the Vermilion Depot; Morse Telegraph, Hudson No. 5345 - Train 89 going 80 MPHRR. Unidentified New York Central Train Sounds.

FX6160 SOUNDS OF NEW MUSIC: This album represents new means of musical expression. The compositions: Ionization: Varese; Aeolian Harp: Cowell; Bananee: Cowell; Sonic Contours: Ussachevsky; Fantasy in Space: Luening; Spectrum #1-El-Da: The Experiments: Ussachevsky; Transposition: Neuberger Composition; Marin: Natural Pipes (base for Music Concrete); Jacobs: Tape Loops, Rhythms, Sonata for Loudspeaker.

FX6161 HERE AT THE WATERS' EDGE A VOYAGE IN SOUND: By Leo Hurwitz in collaboration with Charles Pratt. From the film, Ocean Into Inland Waters, City Edge: The Coves of Manhattan Island, The Surrounding Shores, Rideout to Sea. Soundtrack - text incl.

Ocean	Work voices
Gantries	Tugs at work
Shipyard	Bays and inlets
Children	Gulls and birds
Ship horns	Water lapping and slapping

FX6166 SOUNDS OF NORTH AMERICAN FROGS: The Biological Significance of Voice in Frogs. Narrated by Charles M. Bogert with documentary examples. With the cooperation by the Museum of Natural History N.Y. Introduction to Mating calls. Mating calls as isolation Mechanisms. Taxonomic Levels and Voice Differences. Sounds Produced Under Special Conditions, Pitch in Relation To Body Size. Diversity in Mating Calls. Sample Chorus. Detailed descriptive notes and illustrations of the 55 species.

FX6170 SOUND EFFECTS Vol. 1: Documentary recording by Tony Schwartz. Includes: street traffic (clear day), burning stove, during thunderstorm, street car, coal delivery, cocktail party, luncheonette counter, factory or office lunchroom, all men's bar at lunchtime, press club room, dept. store crowds, matinee intermission crowds, office building lobby, restaurant at supper time, orchestra at dinner time in restaurant, evening coffee shop.

FX6178 SOUNDS OF INSECTS: recorded by Alboot T. Gaul, an entomologist who worked for a number of years with the U.S. Department of Agriculture. He is a past president of the N.Y. Entomological Society, and has been conducting research on insect sounds for the past several years. Includes, Suburban Sounds (Crickets and temperature; Crickets chirp at slow speed), Insect Flight (Inside a hornet; pre-flight warm-up; a fatigue experiment Insect Flight (Wing-beat vs. load; flight-lift experiment; in a hornet nest), Flying Insects (Mosquitoes; bumble bee; May beetle; Japanese beetle; warble-fly; flowerfly; European hornet), Cicada Warm-up and Flight (Tent caterpillar moth; underwing moth; large long-horn beetle screaming; click beetles), Wasp Chewing (False katydid; cicada song, cicada and plane; evening insects), Katydids, Longhorn Beetle Walking, Small Longhorn fly in Flight, Harpula Beetle Walking, Fly Caught on Flypaper, Underwing Moth Walking, Grape-Leaf Beetle Walking, Dragonfly in Flight, Mud-Dauber Wasp Flight, Crabre Argus (Wasp) in Nest, Hover Fly, Deerfly (Chrysopa sageri), Deerfly (Chrysopa vittatus), Japanese Beetles On A Rose, Drone Fly (Eristalis), Bumblebee (Two toned flight), Cicada Song, Spida (Salticus sp.) Walking.

FX6181 DOCUMENTARY SOUNDS, Vol. 1: prepared by Cue Recordings Studio, Mel Kaiser, Engineer: Human Sounds: Street Noises, General Crowd and Audience, Applause, New Year's Eve, Baby Sounds, BELLS, School Bell, Sleigh Bells, Alarm Clock, etc. CARS AND TRUCKS: CONSTRUCTION: Sawing, Hammering, Demolition, Heavy Construction, etc. AIRCRAFT: Jet Engines, Pilot Briefing, etc.

FX6191 THE RELAXATION RECORD: Conceived and narrated by Milton Fehrer, School of Dance and Relaxation. Relaxation: Body and Mind, Going to Sleep, The Habit of Relaxing, Breathing Without Effort, Sitting Correctly, Effortless Good Posture, Walking Without Effort. Detailed illustrated notes. \$5.95

FX6200 VOICES OF THE SATELLITES: Sputniks and Explorers. Recorded and notes by T.A. Benham. Includes Introduction/Sputnik - 1 Doppler effect; information derived from it, Description of Sputniks * 1 and * 2, Laika's heart, Sputnik * 1 alone, Sputnik * 1 showing Doppler effect, Sputnik * 3, Laika's heart, Explorer * 1. Telemetering signals. "Explorer * 2 goes a ride", Vanguard (third attempt), Explorer * 3, Vanguard (second attempt), Modulation from Explorer * 3, and Explorer * 4.

FX6250 SOUNDS OF SCIENCE FICTION: Conceived and recorded by Mel Kaiser. Cue Recordings Studio. Sound Approach of Missile or Creature, Launching Site, Elevator descending, Elevator, Space Ship Hatch, Rocket Blast-Off, Exterior of Space Ship in Motion, Electronic siren, Beeper, Cosmic Bombardment Indicator, etc.

FX6271 LEARNING TO TALK: A study of Sound of Infant Speech Development, recorded by Margaret Greene F.C.S.T. Introduction, Rate of Development, "Sympathetic Communication" Between Mother and Child, Crying: Change in Baby's Vocalization Between 3 and 4 Months, "Comfort Sounds", Appearance of Syllables, Vocal Play, First Words, Beginning to Talk, Understanding the Code, Mispronounced words and "Wrong" Words, "What's This?", Two Years Old: Absorbing New Words and Explanations, Repetition and Questions: "What", "Where", "When", "Why", Explaining to the Child: The Dawn of Reason, The Three Year Old Master Speech, Four Years Old: Articulation, Hesitation, Conclusion.

FX6281 UNDERSTANDING OF SEX, Vol. 1: Sex Principles for Adults - The Psychology of Love and Sex. Produced by the American Marriage Counselors Agency.

FX6110 BACKGROUND MUSIC FOR HOME MOVIES: Music for 18 different moods and situations, including Travel, Romantic, Western, Patriotic, Humor, Danger, Festive, Religious, Fashions, Home, Etc.

FX6112 SOUNDS FOR CAMP: Boy Scout Bugle Calls (20), including Mail Call, School Call, Taps; Church Bells, Big Ben, Anthem (2), Carrillon, Carnival Music, Organ, etc.

FX6137 WHITE-NOISE SOUNDS AND BEEP MASKING: Produced by Institute for Developmental Studies at New York Medical College. Side I (White Noise Test) includes five series of masked stimuli, four test and one practice, lion roaring (practice), baby crying, telephone, fire engine and dog barking. Intensity of masked sound level of masking signal decreased over five steps, while stimulus intensity remains constant. Side II (Beep Test) Original, includes one practice and four test series consisting of eight ten-second recordings of a common sound. Stimuli used for the five series are: whistling (practice), tickle, lady talking, piano playing, lady laughing.

FX6142 THE SOUNDS OF THE OFFICE: Time clock, Coffee break, Dictation and transcription, letter opening, heat coper, stapling, old electric typewriter, adding machine, manual typewriter, calculator, addressograph, etc.

FX6143 THE SOUNDS OF THE JUNK YARD: Incl. acetylene torch, loading pick-up truck by hand, paper baler, alligator shear, burning out an old car, dump truck unloading sheet metal scrap, etc.