

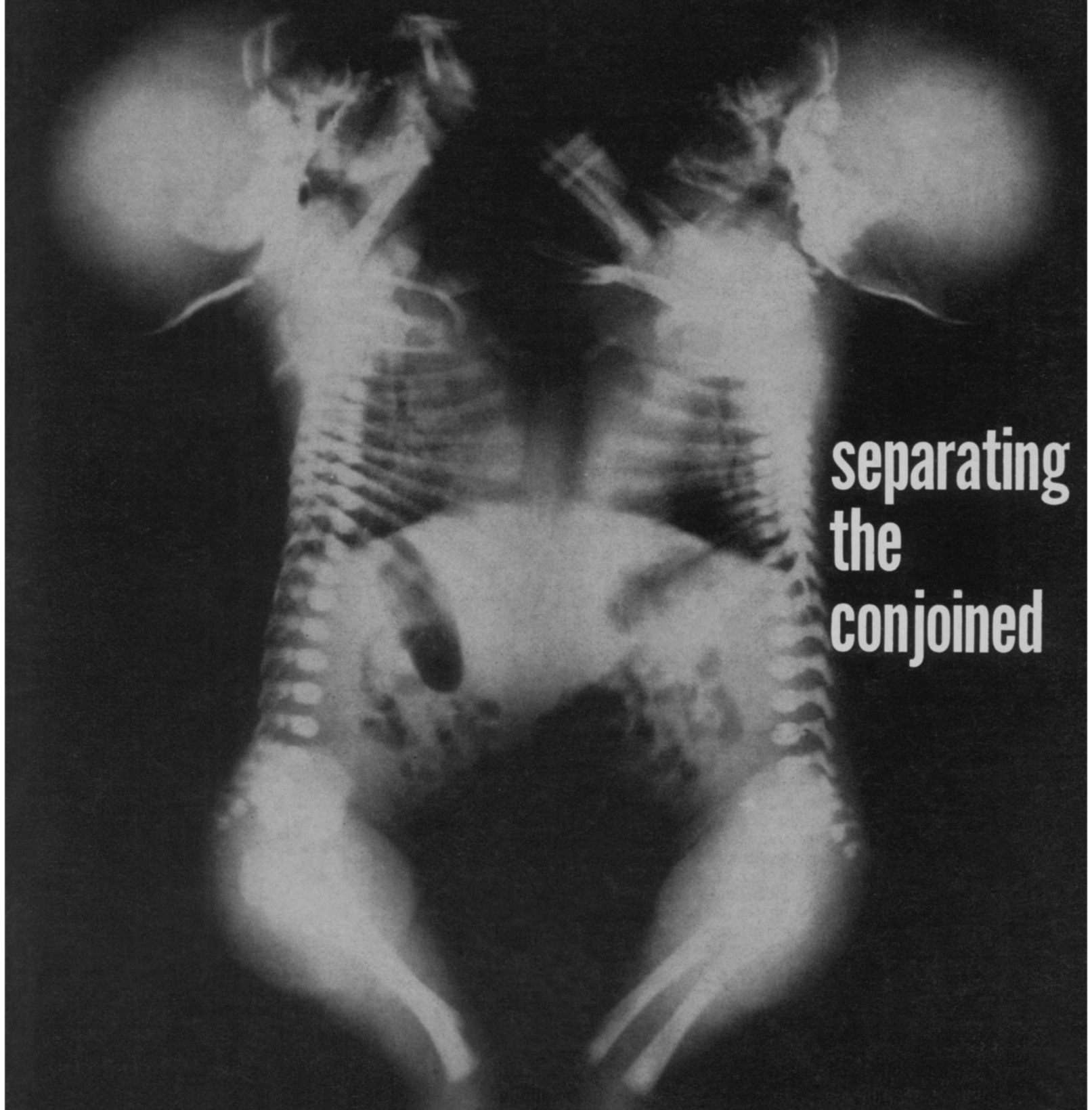
25c



FEBRUARY 17 1968/VOLUME 93/No. 7 P. 153-176

SCIENCE NEWS

new light on corrosion
the danger of silicones



separating
the
conjoined

OF THE WEEK

- 157 Higher education in search of dollars
- 158 Physicists frustrated in search for theory
- 159 Hospital charges outracing their costs
Prescription for a lake dying young
- 160 FDA moves against bioflavonoids
- 161 Colorado River; shoot-out at the water hole
- 167 **Natural Sciences Notes:** Immense prehistoric volcano identified; Seamounts found in South Pacific; U.S. divided into eight atmospheric areas; Return of the masked bobwhite; Survey of top layers of Atlantic Ocean; Two queen bees double honey supply; Exotic animal tissue bank established
- 168 **Physics Notes:** Centaurus XR-2 emissions fall; Streamer spark chamber accurate; Polarizing gamma rays; Filling the holes in the lattice; Fusion power within 30 years; National physics information system
- 171 **Medical Sciences Notes:** Diabetes' effect on blood vessels; Cancer, arthritis found together; Infertility corrected; Flu season came early; New device shows nerve damage
- 175 **Life Sciences Notes:** Enzyme loosens plaque; More hallucinogens proscribed; Pill for rhythm method; Fabric finish effect limited; Ciguatera investigated in Hawaii; Nerve growth factor purer

FROM ABROAD

- 172 **Denmark:** Smoking culprit—CO
Canada: Largest wind tunnel
Geneva: Water works bring disease

IN SCIENCE FIELDS

- 164 **Electrochemistry:** New light on corrosion
- 166 **Surgery:** Separating the conjoined
- 169 **Ecology:** Lobsters, warmed and simulated
- 173 **Silicones:** Illegal, immoral and dangerous

DEPARTMENTS

- | | |
|-----------------------|---------------------------|
| 163 Books of the Week | 174 Ideas of the Week |
| 156 Films of the Week | 156 Letters to the Editor |
| | 154 Patents |

COVER

Conjoined twins often present to surgeons a seemingly insoluble problem, as did these Swiss children. Joined at the breast, they shared critical internal organs. More superficial conjunction increases survival chances. P. 166 (Photo: UPI)



A Science Service Publication
Vol. 93/February 17, 1968/No. 7
Science News Letter ®

Watson Davis, 1896-1967
Publisher: E. G. Sherburne Jr.

Editor: Warren Kornberg
News Editor: Frank Sartwell

EDITORIAL STAFF

Aerospace: Jonathan Eberhart
Behavioral Sciences: Patricia McBroom
Life Sciences: Christopher Weathersbee
Medicine: Faye Marley
Physical Sciences and Astronomy:
Ann Ewing, Dietrick E. Thomsen
Physical Sciences and Technology:
Carl Behrens
Contributing Writer: Barbara Tufty
New Ideas: Ruby Yoshioka
Production Editor: Marilyn Raleigh
Books: Margit Friedrich
Assistant to the Editor:
Nadine Clement

Advertising Director: Louis D. Young
Circulation Manager: Marcia Nelson

SCIENCE SERVICE

Institution for the Popularization of Science founded 1921; a non-profit corporation

Board of Trustees—Nominated by the American Association for the Advancement of Science: **Athelstan F. Spilhaus**, Franklin Institute; **Wallace R. Brode** (Treasurer), Washington, D. C.; **Bowen C. Dees**, University of Arizona. Nominated by the National Academy of Sciences: **Henry Allen Moe**, The Clark Foundation; **Harlow Shapley**, Harvard College Observatory; **Allen V. Astin**, National Bureau of Standards. Nominated by the National Research Council: **Glenn T. Seaborg** (President), U.S. Atomic Energy Commission; **Leonard Carmichael**, National Geographic Society; **John R. Whinnery**, University of California, Berkeley. Nominated by the Journalistic Profession: **O. W. Riegel** (Secretary), Washington and Lee University; **Gordon B. Fister**, Call-Chronicle Newspapers; **Eugene Patterson**, Atlanta Constitution. Nominated by the Scripps Estate: **John Troan**, Pittsburgh Press; **Ludwell Denny**, Scripps-Howard Newspapers; **Edward W. Scripps II** (Vice President), Edward W. Scripps Trust.

Director: E. G. Sherburne Jr.; Assistant Director: Dorothy Schriver; Staff: Science Youth Division: Howard Weisbrod. Photography: Fremont Davis. Syndicate Sales: Forrest L. Snakenberg.

POSTERS OF THE PAST

Rare American posters reproduced exactly. New look for home, office, den, school. Exceptional values.

K1—TELEPHONE HANDBILL—"Prof. Bell speaks and sings"—1877 exhibition of telephone, rare	25¢	R30—SLAVE SALE POSTER—25 Negroes described	40¢	360—MATRIMONIAL MOOD CHART GUIDE for servants; old, humorous	25¢
K2—CONFEDERATE SHEET MUSIC—Gen Morgan Grand March, Richmond, 1864, 4 pages, illustrated	50¢	R32—LINCOLN ELECTION POSTER—19x11—believe it or not, speech by V. Pres. Stephens, Confederacy—boomerang—N.Y. printed—interesting, unknown	50¢	361—WELLS, FARGO CHECKS, Carson & Va. City	15¢
K4—LINCOLN CAMPAIGN POSTER—in vivid color; pictures of Lincoln and Johnson, rarity; colorful	85¢	C1—PLAYBILL—1st Gilbert & Sullivan Amer. performance 1879, Pirates Penzance, rare	35¢	362—HANDBILL—Clark auto—1910—illustrated	25¢
K5—CIVIL WAR RECRUITING POSTER—1st Regt.—bounties—illustrations 17 x 11 limited	50¢	C2—HORSE MATING POSTER, picture, description, fees, unique	25¢	363—HANDBILL—Parry auto—1910—illustrated	25¢
K6—NEGRO SLAVE SALE NOTICE—description, each slave, New Orleans 1835	50¢	C3—LINCOLN LIQUOR LICENSE, 1833, Salem, Tavern, liquor food prices, Lincoln's handwriting illustrations, large size, rare	60¢	364—HANDBILL—Cadillac auto—1910—illustrated	25¢
K7—JESSE JAMES; full length poster; James, horse, reward notice; 19 x 14	75¢	C4—N. Y. STAGECOACH POSTER, horses, coach illus.	40¢	365—HANDBILL—Jackson auto—1910—illustrated	25¢
K8—CIVIL WAR ARMY DISCHARGE—signed by Lincoln and Stanton, illustrated; form of large diploma; volunteers that helped Sherman; most unusual	\$1	C5—CIVIL WAR RECRUITING POSTER—Brooklyn	40¢	366—HANDBILL—Circus, illustrated, bike on wire	25¢
K9—FASHION POSTER; 60 illustrations; 1896 fantastic styles; ladies clothes	75¢	C6—AMER. REVOLUTION RECRUITING POSTER—1777—Phila.—English want sailors	35¢	367—CARTOON—1906—predicts Sunday everyone busy auto repairs, illustrated	25¢
K11—FORD AUTO POSTER—early illustrations, prices	50¢	C7—AMER. REVOLUTION PROCLAMATION—Phila.—Howe orders 8 P.M. curfew	25¢	368—HANDBILL—Flanders auto—1910—illustrated	25¢
P1—REVOLUTIONARY WAR RECRUITING POSTER, Call to arms by Geo. Washington illustrated	50¢	C8—AMER. REVOLUTION RECRUITING POSTER—Phila.—English want "Rangers" 14 x 13	40¢	369—HANDBILL—Ford—1905—illustrated	25¢
P2—OLD CALIFORNIA TRAVEL POSTER; stagecoach, illustrated, fares, destinations, unique	50¢	C9—CIVIL WAR RECRUITING for home guard	25¢	370—HANDBILL—Stevens—Duryea auto—illus.	25¢
P3—MURDERER OF LINCOLN—\$100,000. REWARD	50¢	C10—AMER. REVOLUTION POSTER—orders accept Continental money; help with fires; help build fortifications—1776—large 24 x 19—rare American orders	\$1	371—HANDBILL—White auto—1912—quaint illus.	25¢
P4—CIVIL WAR RECRUITING; Calvary "not to be sent at once into field"	25¢	C11—AMER. REVOLUTION POSTER—Chimney sweeps	25¢	372—HANDBILL—Chalmers auto—1911—illustrated	25¢
P5—TRAVEL POSTER; Steamboat to gold mines of WEST; illustration	50¢	C12—AMER. REVOLUTION POSTER—Howe tells Americans cannot buy certain foods; need permit for medicine; 18 x 14—unusual, rare	50¢	373—HANDBILL—Winton auto—1912—illustrated	25¢
P7—NECK-TIE PARTY. Lists bad men Las Vegas 1881	50¢	C14—CIVIL WAR RECRUITING POSTER	35¢	374—HANDBILL—Pope auto—1905—illustrated	25¢
P8—TEXAS POSTERS; one 1867 seeks horse thief; one 1853 for murderer; both	60¢	C16—JACKSON PRESIDENTIAL ELECTION HANDBILL, illustrated	40¢	375—HANDBILL—Ford auto—5 models—from \$260.	25¢
P9—U.S. REWARD POSTER; Sam and Belle Starr, dead or alive, unique. Federal Gov't. want	25¢	C17—SLAVE AUCTION—1859 N. C. "owner to reside in NORTH"	35¢	376—GEORGE WASHINGTON—1791—silhouette from life, rare	25¢
P10—DALTON GANG REWARD POSTER—Bob, Emmet, Grat Dalton	25¢	C19—TAYLOR PRESIDENTIAL ELECTION HANDBILL, ballad	25¢	377—MARTHA WASHINGTON—1791—silhouette from life, rare	25¢
P11—JESSE JAMES REWARD POSTER—picture Jesse	25¢	C20—RUNAWAY SLAVE POSTER—Reward, 1853	25¢	T378—MATADOR, Bullfight, in full colors, 15 1/4 x 11 1/2	75¢
P12—CONFEDERATE STATES ARMY, NAVY UNIFORMS, 12 prints, 37 different uniforms, the rare official 1861 set of 12 prints	\$1	C23—THEATRICAL POSTER, Joe Jefferson	25¢	379—ENLISTMENT POSTER—1777—Amer. Rev.	30¢
P15—CALIF. BLACK BART POSTERS: Bart left poems at stagecoach hold-ups. Poster with poems 17 x 11	75¢	C25—CIVIL WAR RECRUITING POSTER—tells Washington attack, anticipated, Eagle illus.	35¢	380—ENLISTMENT POSTER—Revolution, British ask "serve during rebellion"	30¢
P33—PLAYBILL—SAN FRANCISCO MINSTRELS	35¢	C27—1870—MENU with prices, steak 15¢	10¢	381—GATLING GUN POSTER—illustration, complete	20¢
P35—PLAYBILL—ROMEO and JULIET, 1767, N. Y.	35¢	C28—MEDICAL BROADSIDE—1st medical announcement in America 1677—symptoms, remedies—quaint, rare	\$1	382—LADIES CORSET ADVERTISEMENTS, illustrated, now funny, once serious	25¢
P36—LINCOLN READING BIBLE TO HIS SON; 1865	25¢	C29—PONY EXPRESS POSTER—illustrated, rates	35¢	383—TAVERN POSTER—1760—prices fixed by Court	30¢
P37—GUN PRINTS; Set of 5 prints	50¢	C30—CIVIL WAR RECRUITING POSTER—TEXAS 1861—rare	40¢	384—CIVIL WAR POSTER—1863—gives prices farmers must accept from Army	25¢
P38—JESUS, portrait formed out of Scripture writing; Unusual oddity	25¢	C31—TEXAS PROCLAMATION—1861—"SHOULD TEXAS SECEDE?"	40¢	385—LINCOLN STATEMENT—1843—says Congress cannot interfere with slavery	30¢
P39—BARNUM CIRCUS; illustrated program, 1876, scarce 25 1/2 x 5	50¢	C32—WELLS-FARGO RECEIPT FOR GOLD—unusual	15¢	386—HANDBILL—shows 4 negroes or 2 horses operate Cotton Press	30¢
P40—PLAYBILL, NIGHT LINCOLN SHOT, FORD THEATRE, Apr. 4, 1865, the show Lincoln was watching when he was shot, historical and scarce	50¢	C33—ELECTION POSTER—HARRISON presidential, 1840, cider, log cabin	35¢	387—PRIVATEERS—instructions—signed J. Monroe, Scty of State	15¢
P41—CIVIL WAR RECRUITING POSTER, appeal for Sharpshooters, 17 x 12, rare	60¢	C34—AMER. REVOLUTION NOTICE—"Cornwallis Retreating"	10¢	388—REWARD POSTER 1797 1/2¢ Runaway Seaman	20¢
P42—REGIMENTAL ORDERS—illustrated; old, Col. Sam Colt, 23 x 12	25¢	C35—REWARD POSTER Pinkerton for Perry "nerviest train robber"	25¢	389—OLD ADVERTISEMENT—Pneumatic Bust—illustrated (for women)	15¢
D1—PHYSICIANS HANDBILL. 1855; treats Cancer, many claims	25¢	C36—VIGILANCE POSTER list of bad-men—1868	30¢	390—GARTER HANDBILL, uplifted skirt, risque for its time, humorous	15¢
D2—EMMENAGOGUE HANDBILL—Full of claims, quaint, illustrated	25¢	C37—ADAMS EXPRESS POSTER, "ship gold"	30¢	391—CARTOON—1774—designed by B. Franklin, rare & interesting	30¢
D3—PAPILLARY OIL. Cures sore nipples 5 days; testimonials, 1845	25¢	C38—BUFFALO BILL WILD WEST SHOW, illustrated	30¢	392—HANDBILL—1870—horses used for machine power, illustrated	20¢
D4—HOME DENTAL OUTFIT—"Fill teeth yourself" with kit—1890 ad	20¢	C39—RAILROAD POSTER, connects Wells-Fargo coach	25¢	393—FIRST U S PATENT—1790—signed G. Wash.	20¢
R1—BRITISH RECRUITING POSTER—American REVOLUTION—offers "50 acres where gallant hero may retire and enjoy his bottle and lass." Unusual, historical, Rare	65¢	C40—BATHING SUITS 1885—Styles seashore 4 ladies	25¢	394—AIRSHIP c. 1850—illustration is fantastic prediction, crossing ocean	20¢
R3—PENN. PROCLAMATION—1681 by King Charles—sets up colony "PENNSYLVANIA" orders obedience to Wm. Penn. Printed in England; 20 x 14, a state is born, rare	\$1	C41—AUTOMOBILE CLOTHING WORN in 1900—3 illustrated ads	25¢	395—PRIZE FIGHT—1886—woodcut J. L. Sullivan revives opponent	25¢
R4—AMERICAN REVOLUTION ALERT—1776, warns Gen. Howe approaches, etc. 20 x 12, rare	35¢	C42—CALAMITY JANE POSTER—exhibition	20¢	396—PHONOGRAPH POSTER—1899—Edison, 1st phonograph, 13 1/2 x 11, illustrated	40¢
R5—AMERICAN REVOLUTION—1781—CORNWALLIS surrendered, orders orderly celebration—His Excellency Gen. Washington	40¢	C43—REWARD POSTER—train robbers, murderers	25¢	397—FOOTBALL POSTER—1880—quaint uniforms, rare, illustrations, 17 x 11	40¢
R6—AMERICAN REV PLAYBILL—British Soldiers	50¢	C44—ANNIE OAKLEY EXHIBITION POSTER—her picture, rifle, medals	35¢	398—INDIAN illustrated ad of Sapolio, quickly civilizes Indians	20¢
R7—AMERICAN REVOLUTION PLAYBILL—"Woman Keeps Secret"	40¢	C45—REWARD POSTER—r. r. train robbers, loot	25¢	399—RIFLE HANDBILL, shoots 26 shots in 60 seconds, illustrated	20¢
R8—AMERICAN REVOLUTION PLAYBILL—plus actual ticket very rare—soldier actors	75¢	C46—REWARD POSTER—Doolin, Dalton train robber	25¢	400—REWARD POSTER—person attempted assassinate W. Seward, Secty State	25¢
R9—MEMBERSHIP signed by Washington and Knox—ornate illustrated certificate. Society of Cincinnati, officers only of AMERICAN REVOLUTION. Cincinnati, Ohio named for this society—"military nobility" opposed by Tammy, rare. 20 x 14	\$1	C47—REWARD POSTER—Robber killed engineer	25¢	401—MAGNA CARTA & complete translation	\$1.50
R26—CONFEDERATE SOLDIERS PLAYING CARDS—primitive folk art illustrations of Conf. soldiers, used in Army, very rare, set of 35 for	\$1	C48—REWARD POSTER—Tom Nixon, notorious Union Pacific R.R. robber	25¢	402—POSTER—1924—Paul Whiteman & George Gershwin give Concert	30¢
R27—CIVIL WAR PATENT MEDICINE LABEL—diseases of camp life	10¢	C49—BUFFALO BILL POSTER—11 illustrations, Indians, Badmen, a la TV	35¢	403—EXHIBITION POSTER—1845—laughing Gas demonstration	25¢
R28—VICTORY NEWS BROADSIDE—REBELS FLEEING—Apr. 1865	35¢	C50—INDIAN SQUAW POSTER—in full regalia	20¢	404—FENCE WIRE POSTER, rare, historical	30¢
R29—SLAVE SALE POSTER—descriptions—19x12 1/2	50¢	C51—PONY EXPRESS POST MARKS, details enlarged, flying pony	20¢	405—LINCOLN & HAMLIN 1860 campaign ribbon, rare picture Lincoln	20¢

Minimum order \$2. Add 15¢ for mailing tube. 10¢ for catalog listing over 500 posters.

PIONEER HISTORICAL SOCIETY

DEPT. SN

HARRIMAN, TENN. 37748