1989 ANNUAL REPORT

BUSINESS DESCRIPTION

Cyanamid is a research-based biotechnology and chemical company which develops medical, agricultural, chemical and consumer products and manufactures and markets them throughout the world.

Our special thanks to:

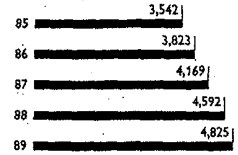
Robert A. Shanik, MD, Manahawkin, NJ; Weyerhaeuser Company, Prince Albert Mill, Saskatchewan; William Paterson College, Wayne, NJ; Ulrich Inc., Ridgewood, NJ

OUR COMMITMENT TO OUR CUSTOMERS

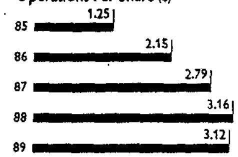
The ultimate challenge and *responsibility of the men and women of* Cyanamid is to achieve and maintain customer satisfaction.

FINANCIAL HIGHLIGHTS

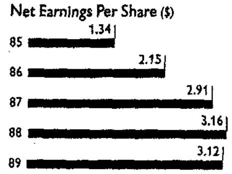
Net Sales ($ Millions)



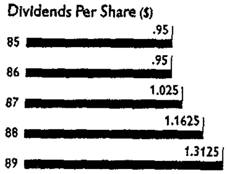
Earnings from Continuing Operations Per Share ($)



Net Earnings Per Share ($)



Dividends Per Share ($)



FINANCIAL HIGHLIGHTS*

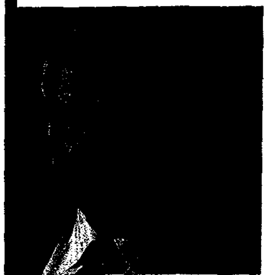
American Cyanamid Company and Subsidiaries

(Dollars in millions except per share amounts)

Operating Results	1989	1988	1987
Net sales	**$4,825.0**	$4,592.2	$4,168.7
Earnings from continuing operations	**292.0**	295.6	264.3
Net earnings	**292.0**	295.6	275.9
Dividends	**120.0**	104.3	93.4
Per share of common stock:			
Earnings from continuing operations	**3.12**	3.16	2.79
Net earnings	**3.12**	3.16	2.91
Dividends	**1.3125**	1.1625	1.025
Depreciation, depletion and amortization	**233.3**	223.1	202.0
Additions to plants, equipment and facilities	**397.6**	381.5	289.8
Research and process development expense	**406.6**	374.1	323.2

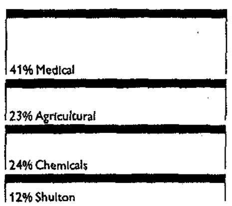
Year-End Position	1989	1988	1987
Total assets	**$4,971.2**	$4,649.7	$4,194.0
Funded debt	**457.7**	493.5	573.2
Stockholders' equity	**2,321.4**	2,101.9	1,923.1
Per share of common stock	**24.30**	22.54	20.57
December 31, closing stock price on the New York Stock Exchange Composite Listing	**53⅝**	46¾	41¼
Shares outstanding	**95,521,591**	93,271,671	93,484,323
Number of stockholders	**49,774**	52,662	51,304
Number of employees	**35,394**	35,689	34,447

*Includes Praxis Biologics, Inc. which was accounted for under the pooling of interests method (Note 3 to the Consolidated Financial Statements).

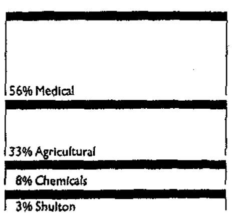


George J. Sella, Jr., Cyanamid Chairman, President and Chief Executive Officer

Worldwide Sales



Operating Earnings



In 1989 your company continued to reap the benefits of growth through the successful introduction of new products and technology, excellent marketing and customer service, and a companywide employee commitment to achieve the strategic intent of our businesses through individual initiative and innovation.

While we were pleased with the results we achieved in 1989, the year also demanded change in response to new challenges and opportunities as we pursued our long-term commitment to building the research and technology-based Cyanamid of the 21st century.

Building for the future, Cyanamid acquired Praxis Biologics, Inc. in November 1989 in a transaction accounted for on a pooling of interests basis and formed a new operating unit to coordinate the vaccine and biological products businesses of Lederle and Praxis.

The company's 1989 and prior years' results and financial information include the accounts and operations of Praxis. The effect of this is to reduce 1989 net earnings by $.33 per share and 1988 net earnings by $.25 per share. Net earnings in 1989 were $292.0 million, or $3.12 per share, versus $295.6 million, or $3.16 per share, in 1988.

Total operating earnings of our business groups in 1989 were a record $579.0 million, up 8% from $538.3 million in the previous year.

Worldwide sales in 1989 were a record $4.83 billion, 5% higher than the $4.59 billion in 1988, despite the translation of 1989 foreign currency sales at unfavorable exchange rates versus 1988.

The Medical Group again set global sales and operating earnings records in 1989 with increased sales of ethical pharmaceuticals, biologicals, consumer health products and medical devices.

Following approval by the U.S. Food and Drug Administration, the new antibiotic, *Suprax* cefixime, was introduced in July 1989. We were pleased with physician acceptance of *Suprax*, the first third-generation oral cephalosporin. *Suprax* is used in the treatment of otitis media, acute bronchitis and other infections.

Worldwide sales and operating earnings of the Agricultural Group reached record levels in 1989, fueled by the continuing growth of the imidazolinone herbicides. *Pursuit* herbicide was successfully introduced for weed control in soybeans and leguminous crops primarily in the mid to northern United States. It complements *Scepter* herbicide, which was introduced in 1986 and now is used in the United States for weed control in soybeans primarily in the mid to southern regions. Combined 1989 worldwide sales of *Pursuit* herbicide and of *Scepter* herbicide were substantially higher than sales of *Scepter* alone in 1988.

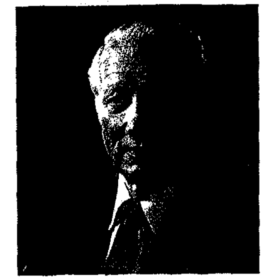
Global sales of the Chemicals Group rose in 1989 versus the previous year. Although there was some improvement in the unfavorable cost-price trend affecting the chemicals business in 1989, worldwide operating earnings of the Chemicals Group were about even with 1988. Results were negatively impacted by costs associated with the expansion of the melamine plant in Louisiana, continued investment in new product development, adverse exchange impacts in Latin America and depressed earnings of the company's acrylic fibers business.

Worldwide sales of the Shulton Group were higher in 1989, but operating earnings declined substantially, in part due to losses related to the company's Shulton subsidiary in Brazil following the discovery by the company in December 1989 that the subsidiary had made unauthorized borrowings and incurred unreported losses in violation of company procedures.

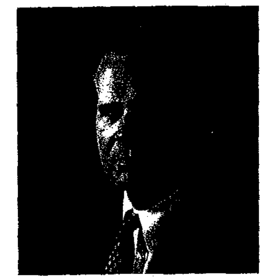
Other major factors that had a negative impact on the performance of the Shulton Group occurred in the United States. These factors were inventory reductions by retailers, higher promotional spending in response to intense competition and higher introductory costs associated with new products.

In April 1989 the Board of Directors increased the company's quarterly dividend from $.30 to $.3375 per share, the equivalent of an annual dividend rate of $1.35 per share versus the former annual rate of $1.20 per share.

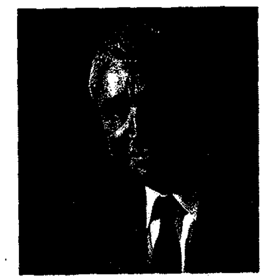
We sustained our strong commitment to the research and development of new products and technology, with costs of $406.6 million in 1989, a 9% increase from the $374.1 million in the prior year. We also continued the expansion and modernization of our agricultural and pharmaceutical research laboratories.



William A. Liffers, Vice Chairman



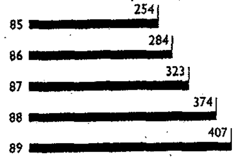
Frank V. AtLee, Executive Vice President



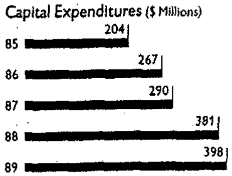
Albert J. Costello, Executive Vice President

Cyanamid's Executive Committee is comprised of George Sella (pictured on page 4), William Liffers, Frank AtLee and Albert Costello (pictured on page 5).

Research & Development ($ Millions)



Capital Expenditures ($ Millions)



Capital spending, exclusive of acquisitions, was $397.6 million in 1989 compared to $381.5 million in 1988.

In 1989 the company began to implement the Chemical Manufacturers Association Responsible Care Program, a major new initiative by the chemical industry to improve industry performance in the management of chemicals and in health, safety and environmental protection.

During the year, George P. Bywater, group vice president, retired. In his 34-year career with Cyanamid, Mr. Bywater made many contributions to the chemical, pharmaceutical and international businesses, particularly to the improvement in the company's Latin America business. In August 1989 Darryl D. Fry, who had been president of the Agricultural Division, was elected group vice president with responsibility for the global agricultural business.

We are proud of our employees throughout the world and their contributions to Cyanamid's success in 1989. With their sustained efforts for profitable growth through innovation, we are confident that Cyanamid will meet the challenges it faces in the 1990s as we pursue our long-term commitment to serve the needs of our customers through the research, development and commercialization of new technology.

For the Board of Directors,

George J. Sella, Jr.
Chairman, President and Chief Executive Officer
February 6, 1990, Wayne, New Jersey

P.S. On February 22, 1990, we announced that Cyanamid has retained an investment banker to study courses of action to maximize the returns on our consumer products business and to explore alternatives, including divestiture or joint venture, for our Shulton Group. We believe this evaluation is appropriate in our continuing effort to increase the value of the company for our stockholders. *G.J.S.*

OUR COMMITMENT TO OUR CUSTOMERS

We share a common vision. Regardless of our function–research, manufacturing, sales and the many others that, together, form and energize Cyanamid–our shared vision is to satisfy the needs of people throughout the world for better health care, food, industrial productivity and personal lifestyle.

But bringing quality products to the world is only half of our goal. Our ultimate challenge and responsibility is to achieve and maintain customer satisfaction... that special relationship of trust that generates repeat sales, builds business and enables us to grow as a profitable and respected company.

Every day, we–the men and women of Cyanamid throughout the world–are building that relationship as we deliver quality products and services to our customers. In the process, we are working to ensure the continued goodwill of our customers and the continued success of our company.

The employees whom you will meet on the following pages are only a few examples of Cyanamid innovation at work. They are representative of all of us–the 35,394 members of the global Cyanamid family. Their commitment, their vision is our shared commitment and vision–from the Americas to Africa, from Europe to the Far East–regardless of culture, currency or language–at Cyanamid, our customers come first.

Emily Thompson is two years old; her brother Mark is one. Both had middle ear infections recently, but both are fine now.

Their mother, Eileen Thompson, didn't waste any time taking her children to their pediatrician. She knows that middle ear infection–technically called otitis media–is the third most common childhood disease in the United States.

She also knows that otitis media, if untreated, can cause temporary hearing loss, sometimes resulting in long-term learning and emotional disabilities.

No, Eileen Thompson isn't a physician. She's a medical representative for Cyanamid's Lederle Laboratories. But as part of her job, Eileen calls on pediatricians and family physicians in her North Carolina territory. And since the middle of last year, she has been telling them about a new Lederle product, *Suprax* cefixime, the first third-generation oral cephalosporin, which is uniquely suited for the treatment of otitis media.

"Once I establish the efficacy of *Suprax* based on scientific data, I enjoy telling the doctors in my territory about the other three major advantages of *Suprax*, especially for the busy parent with a sick child," says Eileen. "I know first-hand about all of the advantages of *Suprax* from caring for Emily and Mark.

"First, as an oral product, it is easy to administer and to take. Second, *Suprax* is given only once a day, which means that working parents can give their children *Suprax* before they leave for school or the day-care center. And third, it doesn't have to be refrigerated, so storage away from home is not a problem."

Dave Standiford is a Lederle district manager based in the Trenton, New Jersey, area. He points out that Eileen is probably an exception as a parent in her knowledge about otitis media.

"Most parents aren't really familiar with otitis media and its potentially serious consequences," says Dave. "At the same time, the children themselves don't connect the pain in their ear with the fact that they can't hear as well."

Last November, Lederle's marketing team gave Dave Standiford and Eileen Thompson–as well as their colleagues around the country–a special educational package to fill both the needs of child and parent.

Called "Otitis Media: A Children's Story...For Parents," the package consists of a 14-minute videotape–narrated by actress Mariette Hartley–and a colorfully illustrated "story" book.

"The tape is great, because it explains the symptoms and possible dangers of otitis media," says Dave. "And the book, on the left-hand pages, helps children understand the way they are feeling through simple words and pictures. On the right-hand pages, the book helps parents recognize the symptoms of otitis media–and understand its possible consequences."

To support the introduction of Lederle's newest antibiotic, Suprax, an educational program was developed for young patients and their parents. Eileen Thompson and Dave Standiford (black & white photo) provide pediatricians, such as Dr. Robert A. Shanik, with the program's booklet and videotape explaining otitis media.

[redacted]

"It became apparent early in the project," continues Valerie, "that one way to save time on light duty cleanups is to get rid of such things as buckets, sponges, paper towels and several cleaners."

Based on that premise, initial development of a new, more convenient cleaner began in early 1988.

"We were looking for a premoistened towel–a sort of baby wipe for the house," explains Dennis Smialowicz, a Household Products group leader in Shulton's research and development laboratories.

"But we had a problem: Shulton had no previous technical expertise in the production or packaging of premoistened towels," Dennis explains.

"We weren't too worried, though, because there was plenty of time to develop the expertise."

Or so they thought...

In late 1988 Valerie and Dennis learned that a competitor planned to introduce a premoistened cleaning wipe in early 1989.

"Our challenge was to develop the most effective and appealing product, and bring it to market quickly," Valerie says.

As the Shulton research team accelerated the product's development, Alan Verduin, director of package development for Household Products, faced a different set of challenges.

"The package had to keep the product moist until the last towel was used," Alan explains, "and it had to be sturdy, but still recyclable. And we wanted a neutral color so the container could be left out in kitchens and bathrooms without being too conspicuous."

"In response to consumer research, we decided to develop one multipurpose towel for a variety of household uses with fresh scent and lemon scent," adds Valerie.

"We had less than one year to accomplish what would normally take at least two," Valerie notes.

"Our target date for market introduction was early October 1989. Every member of the project team met tough deadlines, and the first shipments were right on schedule," Valerie continues with obvious pride in her voice. "We started our consumer advertising in early December with a distinctive TV commercial showing a busy woman using *Spruce-Ups* to clean up around her home while talking on her cordless phone at the same time."

The TV commercial dramatizes the real-life advantages of *Spruce-Ups* to busy women.

"Initial sales indicate strong consumer acceptance. That isn't surprising," concludes Valerie, "because *Spruce-Ups* offer the busy woman–like me–what she wants most–a more convenient way to handle daily cleanups. And that translates to more time for herself–and ultimately a satisfied customer!"

BUSINESS PERFORMANCE

■ MEDICAL GROUP

In 1989 the Medical Group set global sales and operating earnings records for the fourth consecutive year.

Worldwide operating earnings increased 20% to $325.5 million compared to $272.2 million in 1988. Sales reached $1.98 billion, an 8% rise over the $1.83 billion in 1988.

Sales gains were led by ethical pharmaceuticals, biologicals, consumer health products and medical devices.

The U.S. launch of *Suprax* cefixime, the first third-generation oral cephalosporin, met with enthusiastic support from the medical community. *Suprax*, which was licensed from Fujisawa Pharmaceutical Company, Ltd., is a major advance in antibiotic therapy and is used in the treatment of otitis media or middle ear infections in children. Unlike competitive antibiotics, *Suprax* is administered only once a day. The children's liquid suspension formulation also is unique because it does not require refrigeration. Both of these unique advantages are important to parents, especially working parents with children in day-care centers or school. In addition to its pediatric indications, *Suprax* also is effective in the treatment of acute bronchitis, acute exacerbation of chronic bronchitis, urinary tract infections and pharyngitis. It was introduced in Puerto Rico in late 1989 and in Canada in January 1990.

In November 1989 we acquired Rochester, New York-based Praxis Biologics, Inc., which has developed an innovative proprietary glycoprotein conjugate technology that helps create vaccines that are purer, safer and more effective than those produced by conventional technologies. A new operating unit, Lederle-Praxis Biologicals, was formed to coordinate the vaccines and biologicals businesses of Lederle and Praxis, which substantially strengthens our competitive position in this important segment of the health care market.

Sales of biologicals rose in 1989, and two new vaccines were added to the product line. Praxis' *HibTITER* Haemophilus b conjugate vaccine protects against bacterial meningitis in children 18 months of age or older. We expect approval of this vaccine for the immunization of infants in 1990. We licensed *Flu-Imune*, a flu vaccine, from Evans Medical, Ltd. of Great Britain, giving us exclusive rights to sell the product in the United States where it was launched in October 1989. Because *Flu-Imune* provides protection against the Shanghai strain of the infection, which was largely responsible for the high flu incidence in the United States this winter, physician response to the new vaccine was excellent.

Worldwide sales of *Minocin* minocycline, our established third-generation tetracycline antibiotic, again registered substantial gains. *Minocin* is a leader in several markets as an effective treatment for acne, sexually transmitted diseases and respiratory infections.

In the United States, *Pipracil* piperacillin, our semisynthetic penicillin, was successfully repositioned to focus on pseudomonas, one of the most lethal pathogens in hospitals. As a result, *Pipracil* remains the U.S. market leader in its class.

In the anticancer area, sales were led by *Novantrone* mitoxantrone HCl. *Novantrone* performed exceptionally well in its first full year in the United States where it is registered for the treatment of acute nonlymphocytic leukemia. It is sold in more than 35 other countries for use in the treatment of several forms of cancer.

Rheumatrex methotrexate was launched in the United States in 1989 for the treatment of severe rheumatoid arthritis. The product was accepted quickly by rheumatologists.

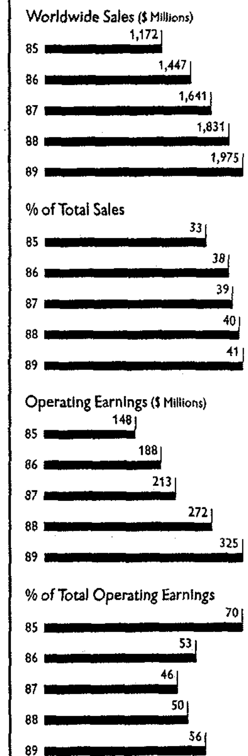
Strong sales of all major brands of consumer health products were led by *Centrum* multivitamins. *Centrum* maintained its U.S. market leadership position, despite an overall sales decline in the market category. U.S. sales and market share of *FiberCon* calcium polycarbophil bulk-forming laxative tablets increased significantly.

Our international pharmaceutical business contributed strong sales growth in *Minocin* minocycline and *Novantrone* mitoxantrone. Felbinac, a topical antiarthritic drug which was introduced in the United Kingdom in late 1988, achieved impressive sales. We continued to introduce bisoprolol in foreign countries and to gain market share. Sold under the *Monocor* and various other trademarks, bisoprolol is a cardioselective beta blocker for use in the treatment of hypertension and angina and is licensed from E. Merck. It is sold in five European markets and is expected to be launched in several Far East markets in 1990. We filed a New Drug Application (NDA) with the U.S. Food and Drug Administration for *Monocor* in July 1989.

The medical device business achieved worldwide sales gains in Davis + Geck wound closure products, Storz ophthalmic products and Acufex orthopaedic devices. A major effort to introduce Storz and Acufex products into international markets produced positive results. *Vital Vue*, an acquired innovative combination suction/irrigation/light source, was marketed for use in a variety of surgical specialties. International sales of *Dexon* synthetic absorbable sutures and other suture products increased significantly.

We continued to make important progress in our medical products research and development programs. In antibiotics, we have started Phase III clinical trials on tazobactam, a beta-lactamase inhibitor licensed from Taiho Pharmaceutical Company of Japan. Tazobactam is targeted for use with piperacillin to broaden its use against gram-positive and gram-negative pathogens and to improve bacterial susceptibility. We expect to apply for approval to market tazobactam in Europe in 1990.

MEDICAL GROUP



In conjunction with Quadra Logic Technologies, Inc. of Vancouver, British Columbia, Canada, we began Phase III clinical trials of *Photofrin* polyporphyrin, a light-activated drug to be used for the treatment of lung, esophageal and bladder cancers. *Photofrin* is expected to be launched in Canada in 1990.

Other anticancer research projects include two platinum-based agents used in the treatment of melanomas and cancers of the head, neck, testes, ovaries and bladder and an immunomodulator used to treat a variety of cancers and viral infections. We have several biotechnology products in development utilizing monoclonal antibodies that will target specific cancers. Our goal is to develop drug delivery systems that will carry anticancer agents directly to the tumor sites with minimum damage to healthy cells.

In addition to bisoprolol, we also have two other cardiovascular agents in clinical trials. We are developing a combination product using bisoprolol with a low-dose diuretic as well as a hypolipidemic agent licensed from Rice University, which may be effective in lowering cholesterol and treating or preventing arterial plaque buildup.

In addition, our pharmaceutical discovery research scientists are in the very early stages of innovative projects to develop compounds for depression, anxiety, insomnia, memory loss, arthritis, allergies and cancer.

We are committed to building on our strength as the number-one supplier of biologicals in the United States by developing a new generation of safer, more effective vaccines largely based on biotechnology. By mid-1990 we expect to file a Product License Application (PLA) for an acellular pertussis vaccine. This vaccine may replace the existing whole cell pertussis component in our *Tri-Immunol* vaccine for use in the booster phase of the DTP vaccination series for the protection of children at the ages of 18 months and five years. Also in clinical trials are an injectable killed polio vaccine, vaccines for herpes simplex 1 and 2 and meningitis, and vaccines for Haemophilus influenzae and pneumonia in infants. A major new focus of our research in biologicals is to develop combination vaccines.

In the medical device field, we are working to develop new products for wound management, ophthalmics and orthopaedics.

A second generation *Dexon* II braided suture, with a novel coating which significantly improves its handling characteristics, will be launched worldwide in 1990. Early reactions to this suture from surgeons have been positive.

An absorbable mesh intestinal sling is gaining physician acceptance as a means of preventing radiation damage. Other mesh products for the surgical correction of hernias and other soft tissue defects are in development.

Longer-term research includes the development of biological and chemical agents which may accelerate the tissue healing process following trauma and surgery, and thus reduce convalescence.

In the ophthalmic area, our new *True Vista* bifocal intraocular lens is now in clinical trials in Europe. A program is under way to identify new antiglaucoma agents and to develop or license pupillary dilators and constrictors and agents which assist with vitreous removal.

With the 1990 launch of *Biofix* rods, we expect to become a leader in absorbable-device fixation of bone fractures. This technology may eventually eliminate the need to reoperate on patients to remove implanted metal bone fixation devices after healing has occurred. We also are developing an absorbable soft tissue to bone fixation device, *Suretac*, which may significantly improve the repair of certain joint injuries.

AGRICULTURAL GROUP

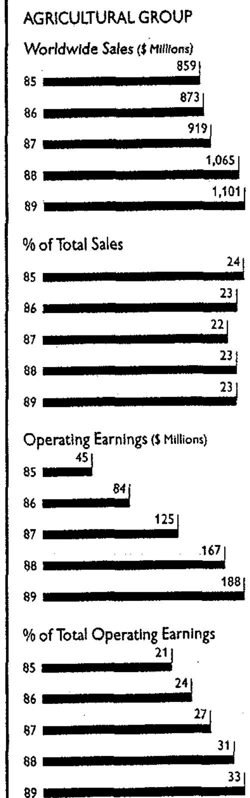
Worldwide sales of the company's imidazolinone herbicides helped propel the Agricultural Group to record sales and operating earnings in 1989.

Global operating earnings grew 13% to $187.8 million compared to $166.7 million in 1988. Sales increased to $1.10 billion, a 3% gain over $1.07 billion the previous year.

Pursuit herbicide, which complements *Scepter* herbicide, was introduced in the United States in 1989. Both products are members of the imidazolinone family of herbicides discovered by a Cyanamid scientist. *Pursuit* is used for weed control in soybeans and other leguminous crops primarily in the mid to northern United States. *Scepter* now is marketed in the United States for weed control in soybeans primarily in the mid to southern regions. The combined worldwide sales of the two products were substantially higher in 1989 than sales of *Scepter* alone in 1988. *Pursuit* also is registered in Argentina, Paraguay, the People's Republic of China and Thailand, and registration is expected in Brazil for the 1990 growing season. In addition, the introduction of *Pursuit Plus*, a combination of *Pursuit* and *Prowl* herbicides, achieved good introductory sales in niche markets. In addition to the two soybean herbicides, the imidazolinone group includes *Assert* and *Arsenal* herbicides.

Assert, used to control wild oats and blackgrass in wheat and barley, scored gains in international markets as a result of the introduction of new combination products in Italy and the United Kingdom. *Assert* is the first imidazolinone herbicide to be registered in Scandinavia, and additional registrations are expected in 1990. U.S. sales of *Arsenal* TVC herbicide grew as it continued to make inroads in industrial and forestry applications and along railroad rights-of-way.

The unique imidazolinone technology is expected to yield several additional products in the 1990s as well as numerous combination products.



Prowl herbicide, used on grass and broadleaf weeds in major crops such as soybeans, rice, cotton, cereals and maize, established another sales record in 1989 with gains in both domestic and international markets, where it is used extensively in combination products to meet local market needs. Our manufacturing facility for *Prowl* in Hannibal, Missouri, is being expanded to meet the growing demand for the product.

Market-leader *Counter* insecticide registered sales gains while again extending its share of the U.S. soil insecticide market for corn. Sales of *Thimet* and *Amdro* insecticides also increased worldwide.

International sales of *Cygro* coccidiostat increased. *Cygro*, which prevents coccidiosis in poultry, was approved by the U.S. Food and Drug Administration in November 1989, and the 1990 summer poultry season is targeted as the first major marketing effort in the United States. *Cygro* has unique advantages over several competing products in its class in the United States. It is significantly more potent, less toxic to other species and has a superior patented premix formulation which provides uniform feed distribution. Another new animal health product, moxidectin endectocide, was registered for use in Argentina in beef cattle. It controls both external and internal parasites in food animals as well as pets and is expected to be launched in 1990.

We continued our successful strategy of developing and introducing combination agrichemical products, primarily herbicides, for niche markets, especially in Europe. A state-of-the-art formulations plant utilizing proprietary Cyanamid technology came on stream in Gravelines, France, in October to formulate herbicides, including *Assert*, *Avenge* and *Prowl*, which is marketed under the *Stomp* trademark in Europe, and various combination herbicide products for sale in Western Europe.

The collaborative effort with Pioneer Hi-Bred International to develop hybrid corn varieties resistant to our imidazolinones made good progress in 1989 and is expected to open that crop market to use of these products. We are working with other major research-oriented companies and universities to develop imidazolinone-resistant wheat, rice, sugar beets, rapeseed and vegetables and are continuing our in-house research efforts to develop resistant wheat and cotton.

We are developing a herbicide which has potential for use against major weeds in European cereal production and in the Japanese rice market. Results are encouraging in the development of a plant growth modifier which enhances the yield and quality of various fruits and nuts and will help us to enter the California market for those crops. A group of broad-spectrum insecticides discovered by our scientists are in development. The group possesses a novel mode of action and has significant potential in cotton, rice, vegetables and many other crops.

In animal products research, we continued the development of two genetically-engineered products. Bovine somatotropin (BST) improves milk production and feed efficiency in dairy cows. Porcine somatotropin (PST) allows pigs to grow bigger, faster and consume less feed, resulting in leaner meat. Development also is continuing on moxidectin endectocide for worldwide registration. Our extensive biotechnology program includes efforts to develop growth-promoting agents and products which stimulate the immune systems of animals, enhance growth and carcass composition, and control infections.

■ CHEMICALS GROUP

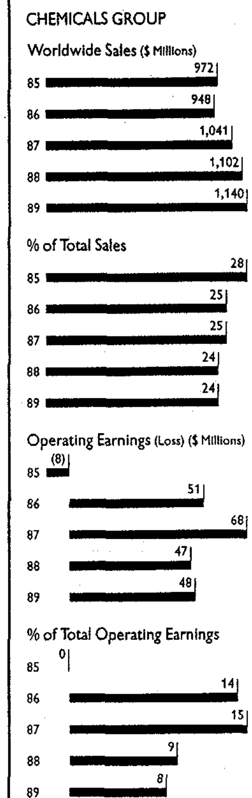
In 1989 worldwide sales for the Chemicals Group rose to $1.14 billion, a 3% gain from the $1.10 billion in 1988. Operating earnings were $47.7 million, about even with 1988. Results were negatively impacted by costs associated with expansion of the melamine plant in Louisiana and continued investment in the development of new products and technology. Other factors affecting the performance of the Group included adverse foreign exchange impacts in Latin America and depressed earnings of our acrylic fibers business as a result of lower overseas demand for the product and increased energy costs.

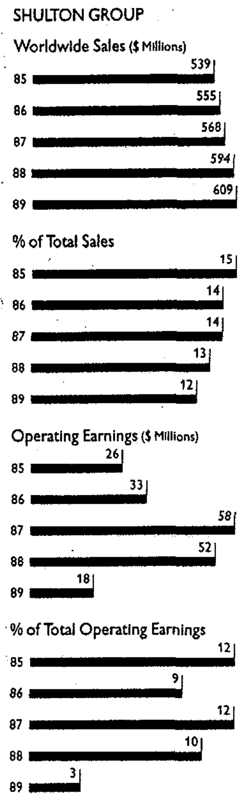
The melamine plant expansion makes it one of the world's largest and most advanced manufacturing facilities for this material. Located at our Fortier plant near New Orleans, Louisiana, the plant is owned by American Melamine Industries (AMEL), a manufacturing joint venture between Cyanamid and Dutch State Mines of The Netherlands.

Sales of adhesives, sealants and encapsulants produced by Conap, Inc., which we acquired in mid-1988, rose in 1989. U.S. sales of acrylonitrile, carbide products, rubber chemicals, sulfuric acid, *Cyalume* chemical light products, acrylic fibers, paper and water-treating chemicals, organic flocculants and methylated crosslinking resins increased in 1989. Sales of our new urethane chemicals, called aliphatic isocyanates, rose significantly. This new family of products is used in paints for the architectural and automotive industries and in roofing and flooring applications.

Our international business achieved solid sales gains in acrylonitrile, carbide products, mining chemicals, organic flocculants, rubber chemicals and engineered materials.

Our chemical research effort continues to be focused on supporting our leadership position in certain specialty chemicals as well as opening new markets for the





future. Major projects are under way in paper, water-treating and mining chemicals, organic flocculants, amino and isocyanate crosslinking resins, urethane chemicals, polymer additives for the industrial coatings market, adhesives and composites, and phosphine chemicals for use in such areas as flame retardant materials.

Our research in new business areas includes air and water filtration for use in high-technology applications; water soluble binders for industrial applications; metal-coated fibers for electromagnetic shielding; processing aids for powder molding; bioseparations technology for possible use in manufacturing pharmaceuticals from fermentation and genetic engineering; and electronic chemicals for the semi-conductor industry.

■ SHULTON GROUP

Worldwide sales of the Shulton Group advanced to $608.7 million in 1989, a 2% increase over the $594.1 million in 1988, led by increased worldwide sales of household products. However, operating earnings of the Group were $18 million, down 65% from $52 million in the previous year, due to losses related to our Shulton subsidiary in Brazil and in the United States due to the negative effects of inventory reductions by retailers, higher promotional spending in response to intense competition and higher introductory costs associated with new products.

In 1989 the line of *Combat* brand products registered sales and market share gains in the United States aided by the successful introduction of *Combat* insecticide fogger for roaches and fleas. The fogger uses a water-based formula that offers significant environmental advantages over competitive solvent-based fogger products. Worldwide sales of *Pine-Sol* liquid cleaner set a record in 1989. The leadership position of the brand in the United States was enhanced by the introduction of a new broad-spectrum disinfectant formulation. In addition, *Pine-Sol Spruce-Ups*, convenient multipurpose moist household cleaning wipes, were introduced in the United States late in the year. We were pleased with initial retailer acceptance of this new household cleaning product.

In the toiletries area, sales of *Old Spice* deodorant and antiperspirant products and *Breck* shampoo increased in 1989. Sales of the line of *Thrive* hair care products for men with thinning hair, which was introduced in 1989, were disappointing and reflect a lack of consumer demand and minimal category growth.

Our international business recorded sales gains, especially of *Combat* insecticides, *Pine-Sol* liquid cleaner, *Insignia* men's toiletries and *Rapport* men's fragrance. During the year we gained market share in several countries with *Insignia*, *Rapport* and *Pine-Sol*. We also expanded existing products into several countries, including *Rapport* and *Pine-Sol* spray in Canada and *Maxforce* insecticide in Italy and Spain.

Our Shulton Research Division is focusing on developing a number of new products. We plan to test market *Tapguard* faucet filter, an inexpensive, point of use water filtration system, in 1990. Also, line extension programs are in progress for major brands in both toiletries and household products.

FINANCIALS

Operating Results

Cyanamid's consolidated sales in 1989 were $4.83 billion, an increase of 5% from the $4.59 billion in 1988. Sales in 1988 were 10% higher than the $4.17 billion in 1987. Net earnings of $292.0 million in 1989 were 1% below the $295.6 million in 1988, which were 7% above the $275.9 million in 1987. Net earnings per share in 1989 were $3.12 compared to $3.16 in 1988 and $2.91 in 1987. Net earnings and net earnings per share in 1987 include discontinued operations of $11.6 million and $.12, respectively.

Common Stock and Dividends Paid

Reported comparative high and low market prices on the New York Stock Exchange Composite Listing and dividends paid per share of common stock by quarter for 1989 and 1988 were:

	1989			1988		
	Market Price		Dividends	Market Price		Dividends
Quarter	High	Low	paid	High	Low	paid
First	$52¾	$45⅝	$ .30	$56	$41⅞	$ .2625
Second	57	51⅜	.3375	55⅛	44½	.30
Third	60⅜	50¾	.3375	54⅜	45¼	.30
Fourth	55⅛	48¼	.3375	52¼	44	.30
			$1.3125			$1.1625

As of February 15, 1990, the most recent record date, there were 49,613 record holders of the company's common stock. See Note 7 to the Consolidated Financial Statements regarding limitations on the payment of dividends.

Quarterly Results

Quarterly results for 1989 and 1988 were as follows:

(Millions of dollars except per share amounts)

Quarter	Net sales	Gross profit*	Net earnings	Net earnings per share of common stock
1989				
First	$1,232.4	$ 626.5	$ 85.0	$ .91
Second	1,302.7	662.0	107.1	1.15
Third	1,143.0	592.9	61.4	.65
Fourth	1,146.9	605.5	38.5**	.41**
Total	$4,825.0	$2,486.9	$292.0	$3.12
1988				
First	$1,148.5	$ 562.1	$ 76.3	$ .82
Second	1,246.4	626.6	96.5	1.03
Third	1,094.2	553.6	62.0	.66
Fourth	1,103.1	557.3	60.8	.65
Total	$4,592.2	$2,299.6	$295.6	$3.16

*Gross profit is derived by subtracting manufacturing cost of sales from net sales.

**Net earnings and net earnings per share includes a provision of approximately $24.0 and $.25, respectively, related to the company's Shulton subsidiary in Brazil (Note 3 to the Consolidated Financial Statements).

Quarterly results for 1989 and 1988 *(continued)*

(Millions of dollars except per share amounts)

Sales	1989			1988		
Quarter	Unadjusted	Praxis Adjustment	Restated	Unadjusted	Praxis Adjustment	Restated
First	$1,231.6	$ .8	$1,232.4	$1,148.5	$ –	$1,148.5
Second	1,299.3	3.4	1,302.7	1,246.3	.1	1,246.4
Third	1,140.8	2.2	1,143.0	1,094.1	.1	1,094.2
Fourth	1,145.5	1.4	1,146.9	1,103.1	–	1,103.1
	$4,817.2	$7.8	$4,825.0	$4,592.0	$ .2	$4,592.2

Gross Profit*	1989			1988		
Quarter	Unadjusted	Praxis Adjustment	Restated	Unadjusted	Praxis Adjustment	Restated
First	$ 626.7	$(.2)	$ 626.5	$ 563.1	$(1.0)	$ 562.1
Second	659.8	2.2	662.0	627.6	(1.0)	626.6
Third	591.9	1.0	592.9	554.1	(.5)	553.6
Fourth	604.8	.7	605.5	557.7	(.4)	557.3
	$2,483.2	$3.7	$2,486.9	$2,302.5	$(2.9)	$2,299.6

Net Earnings	1989			1988		
Quarter	Unadjusted	Praxis Adjustment	Restated	Unadjusted	Praxis Adjustment	Restated
First	$ 89.0	$ (4.0)	$ 85.0	$ 79.2	$ (2.9)	$ 76.3
Second	110.4	(3.3)	107.1	99.5	(3.0)	96.5
Third	64.5	(3.1)	61.4	64.1	(2.1)	62.0
Fourth	46.4***	(7.9)	38.5***	62.8	(2.0)	60.8
	$310.3	$(18.3)	$292.0	$305.6	$(10.0)	$295.6

Net Earnings Per Share	1989			1988		
Quarter	Unadjusted**	Praxis Adjustment	Restated	Unadjusted**	Praxis Adjustment	Restated
First	$ .99	$(.08)	$ .91	$ .88	$(.06)	$ .82
Second	1.23	(.08)	1.15	1.11	(.08)	1.03
Third	.72	(.07)	.65	.71	(.05)	.66
Fourth	.51***	(.10)	.41***	.71	(.06)	.65
	$3.45	$(.33)	$3.12	$3.41	$(.25)	$3.16

*Gross profit is derived by subtracting manufacturing cost of sales from net sales.

**Based on average shares excluding those issued in connection with the Praxis acquisition.

***Net earnings and net earnings per share includes a provision of approximately $24.0 and $.25, respectively, related to the company's Shulton subsidiary in Brazil (Note 3 to the Consolidated Financial Statements).

CONSOLIDATED STATEMENTS OF EARNINGS

American Cyanamid Company and Subsidiaries

(Millions of dollars except per share amounts)

Years ended December 31,	1989	1988	1987
Net sales	**$4,825.0**	$4,592.2	$4,168.7
Expenses:			
Manufacturing cost of sales	**2,338.1**	2,292.6	2,135.0
Selling and advertising	**1,266.9**	1,183.3	1,076.1
Research and process development	**406.6**	374.1	323.2
Administrative and general	**310.9**	280.3	266.3
	4,322.5	4,130.3	3,800.6
Earnings from operations	**502.5**	461.9	368.1
Interest, royalties and other income, net	**95.1**	85.2	90.7
	597.6	547.1	458.8
Interest expense	**148.7**	107.7	84.8
Earnings of consolidated companies before taxes on income—continuing operations	**448.9**	439.4	374.0
Taxes on income (Note 10)	**186.6**	168.0	130.4
Earnings of consolidated companies—continuing operations	**262.3**	271.4	243.6
Equity in net earnings of associated companies	**29.7**	24.2	20.7
Earnings from continuing operations	**292.0**	295.6	264.3
Discontinued operations (Note 2)—			
Gain on sale (after taxes of $2.8)	**–**	–	11.6
Net earnings	**$ 292.0**	$ 295.6	$ 275.9
Per share of common stock (Note 1):			
Earnings from continuing operations	**$ 3.12**	$ 3.16	$ 2.79
Discontinued operations	**–**	–	.12
Net earnings	**$ 3.12**	$ 3.16	$ 2.91

CONSOLIDATED STATEMENTS OF EARNINGS EMPLOYED IN THE BUSINESS

(Millions of dollars except per share amounts)

Years ended December 31,	1989	1988	1987
Earnings employed in the business at beginning of year	**$1,901.7**	$1,714.7	$1,707.2
Adjustment for stock split (Note 1)	**–**	–	(172.8)
Net earnings	**292.0**	295.6	275.9
Deduct dividends of $1.3125 per share in 1989, $1.1625 per share in 1988 and $1.025 per share in 1987	**(120.0)**	(104.3)	(93.4)
Other, net (Note 8)	**(2.4)**	(4.3)	(2.2)
Earnings employed in the business at end of year	**$2,071.3**	$1,901.7	$1,714.7

See accompanying Notes to Consolidated Financial Statements.

CONSOLIDATED BALANCE SHEETS

American Cyanamid Company and Subsidiaries

(Millions of dollars)

December 31,	1989	1988
Assets		
Current assets		
Cash and cash equivalents	**$ 326.4**	$ 240.2
Marketable securities and time deposits, at cost (approximates market)	**159.4**	341.4
Accounts receivable, less allowance for doubtful accounts of $34.4 in 1989 and $33.1 in 1988	**1,134.8**	1,002.6
Inventories (Note 5)	**826.0**	727.1
Total current assets	**2,446.6**	2,311.3
Investments and advances		
Equity in net assets of and advances to associated companies	**208.4**	190.9
Other investments and advances	**152.8**	156.5
Total investments and advances	**361.2**	347.4
Plants, equipment and facilities, at cost (Note 6)	**3,418.4**	3,159.7
Less accumulated depreciation and depletion	**1,661.4**	1,571.5
Net plant investment	**1,757.0**	1,588.2
Intangibles resulting from business acquisitions, net of accumulated amortization	**251.4**	260.9
Other assets	**155.0**	141.9
	$4,971.2	$4,649.7
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable and accrued expenses	**$1,007.5**	$1,053.9
Short-term borrowings, including commercial paper of $648.2 in 1989 and $490.0 in 1988	**741.3**	551.3
Funded debt installments due within one year	**19.4**	74.7
Income taxes payable	**17.4**	17.5
Total current liabilities	**1,785.6**	1,697.4
Funded debt (Note 7)	**457.7**	493.5
Deferred income taxes	**121.5**	120.8
Other non-current liabilities	**285.0**	236.1
Stockholders' equity (Notes 1, 7, and 8)		
Common stock—par value $5 per share Authorized—200,000,000 Issued—102,555,720 in 1989 and 101,903,425 in 1988	**512.8**	509.5
Additional paid-in capital	**28.0**	–
Earnings employed in the business	**2,071.3**	1,901.7
Accumulated translation adjustments	**(42.1)**	(9.0)
Less treasury stock, at cost	**(248.6)**	(300.3)
Total stockholders' equity	**2,321.4**	2,101.9
	$4,971.2	$4,649.7

Contingent Liabilities and Commitments (Note 9)

See accompanying Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

American Cyanamid Company and Subsidiaries

(Millions of dollars)

Years ended December 31,	1989	1988	1987
Cash flows from operating activities			
Net earnings	**$292.0**	$ 295.6	$ 275.9
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Depreciation, depletion and amortization	**233.3**	223.1	202.0
Equity in undistributed net earnings of associated companies	**(21.5)**	(19.4)	(14.6)
Gain from discontinued operations	**—**	—	(11.6)
Other, net	**19.9**	14.5	(14.0)
Changes in assets and liabilities, net of effects from acquisitions/dispositions of businesses:			
Accounts receivable	**(220.7)**	(103.2)	(55.4)
Inventories	**(125.4)**	(50.8)	(53.8)
Accounts payable and accrued expenses	**(23.9)**	73.0	97.0
Other assets and liabilities	**22.3**	23.9	28.4
Net cash flows from operating activities	**176.0**	456.7	453.9
Cash flows provided by (used for) investing activities			
Additions to plants, equipment and facilities	**(397.6)**	(381.5)	(289.8)
Acquisitions of businesses, net of cash acquired	**(6.3)**	(20.4)	(100.9)
Change in equity in net assets of and advances to associated companies	**1.4**	(38.1)	—
Proceeds from dispositions of businesses	**20.1**	8.8	78.5
Additions to investments—principally marketable securities	**(451.1)**	(2,179.0)	(2,142.1)
Reductions to investments—principally marketable securities	**636.2**	2,204.8	2,094.3
Other, net	**7.6**	(4.4)	(10.6)
Net cash used for investing activities	**(189.7)**	(409.8)	(370.6)
Cash flows provided by (used for) financing activities			
Change in short-term borrowings, net	**232.5**	208.6	157.0
Funded debt:			
Additions	**11.3**	8.9	32.3
Reductions	**(88.2)**	(67.6)	(66.4)
Sale/issuance of common stock	**60.6**	—	27.2
Purchases of treasury stock	**(8.4)**	(41.8)	(119.3)
Cash dividends	**(120.0)**	(104.3)	(93.4)
Other, net	**26.9**	17.5	12.1
Net cash provided by (used for) financing activities	**114.7**	21.3	(50.5)
Effect of exchange rate changes on cash	**(14.8)**	(6.7)	7.0
Increase in cash and cash equivalents	**86.2**	61.5	39.8
Cash and cash equivalents, beginning of year	**240.2**	178.7	138.9
Cash and cash equivalents, end of year	**$326.4**	$ 240.2	$ 178.7

See accompanying Notes to Consolidated Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

American Cyanamid Company and Subsidiaries

(Millions of dollars except per share amounts)

1. Summary of Accounting Policies

Consolidation—The consolidated financial statements include the accounts of American Cyanamid Company and subsidiaries. All significant intercompany transactions and balances have been eliminated. Subsidiaries operating outside the United States and Canada are included on a fiscal-year basis ending November 30.

The equity method of accounting is used for investments in associated companies (20% to 50% owned). At December 31, 1989, the principal associated companies are Criterion Catalyst Company L.P., CYRO Industries, Lederle (Japan) Ltd. and TDF Tiofine B.V. (all 50% owned).

Currency Translation—For most of the company's international operations, all elements of financial statements are translated into U.S. dollars using current exchange rates, with translation adjustments accumulated in stockholders' equity. For other international operations, certain financial statement amounts are translated at historical exchange rates with all other assets and liabilities translated at year-end exchange rates. These international operations are generally in hyperinflationary economies, principally Latin America.

Depreciation and Amortization—Depreciation is provided primarily on a straight-line composite method over the estimated remaining useful lives of various classes of assets. When such depreciable assets are sold or otherwise retired from service, their cost, less amounts realized on sale or salvage, is charged or credited to the accumulated depreciation account. Expenditures for maintenance and repairs are charged to current operating expenses. Acquisitions, additions and betterments to either provide necessary capacity, improve the efficiency of production units, modernize or replace older facilities or install equipment for protection of the environment are capitalized. Intangibles resulting from business acquisitions are carried at cost and amortized over a period of up to 40 years unless, in the opinion of management, their lives are limited, or they have sustained a permanent diminution in value, in which case they are amortized over lesser periods.

Cash and Cash Equivalents—Cash equivalents are considered to be those securities with maturities of three months or less when purchased.

Inventories—Inventories are carried at the lower of cost or market. Cost is determined on the last-in, first-out (LIFO) method for substantially all inventories in the United States with all other inventories determined on the first-in, first-out (FIFO) or average methods.

Taxes on Income—Deferred income taxes are provided to recognize the effect of timing differences between financial statement and income tax accounting.

The company provides taxes on the undistributed earnings of subsidiaries and associated companies if the remittance of such earnings is not considered to be indefinitely postponed. At December 31, 1989, the company has no present intention of remitting undistributed earnings of subsidiaries (including those in Puerto Rico) and associated companies *aggregating* $1,154.4.

Stock Split—On February 17, 1987, the Board of Directors declared a 2-for-1 split of the common stock which was effected in the form of a 100% stock dividend on June 12, 1987, to stockholders of record on May 8, 1987. All per share data included in the financial statements and notes have been adjusted for the stock split. An amount equal to the $5 per share par value of the additional common shares was transferred from additional paid-in capital and earnings employed in the business to common stock as of January 1, 1987.

Earnings Per Share—Earnings per share of common stock is based on the average number of shares outstanding during the year, 93,701,115 in 1989, 93,430,628 in 1988 and 94,755,761 in 1987. The stock options and warrants described in Note 8 do not result in a material dilution of earnings per share.

Accounting Changes—The company adopted the provisions of Statement of Financial Accounting Standards No. 87 for all pension plans in the United States in 1987 and for its principal foreign plans in 1988. The effect of these changes was not material to the consolidated financial statements.

(Millions of dollars except per share amounts)

2. Discontinued Operations

During 1987 the company realized an additional net gain associated with the 1985 sale of the Formica Brand Products Group business. The gain was attributable to the early redemption of securities by Formica Corporation, the proceeds from which were in excess of the values initially ascribed to such items.

3. Acquisitions, Dispositions, Special Items

In November 1989 the company issued 3,903,798 shares of its common stock in exchange for all the outstanding common stock of Praxis Biologics, Inc. Praxis develops, manufactures and markets highly purified vaccines for the prevention of infectious diseases. The acquisition has been accounted for under the pooling of interests method and, accordingly, the company's financial statements and financial data have been restated to include the accounts and operations of Praxis. Certain reclassifications have been made to Praxis historical accounts to conform to the company's presentation.

Net sales and net earnings of the company and Praxis for the periods prior to the acquisition were as follows:

	Nine months ended Sept. 30,	Years ended Dec. 31,	
	1989	1988	1987
Net sales:			
Previously reported	$3,671.7	$4,592.0	$4,166.1
Praxis	6.4	.2	2.6
	$3,678.1	$4,592.2	$4,168.7
Earnings from continuing operations:			
Previously reported	$263.9	$305.6	$264.0
Praxis	(10.4)	(10.0)	.3
	$253.5	$295.6	$264.3
Net earnings:			
Previously reported	$263.9	$305.6	$275.6
Praxis	(10.4)	(10.0)	.3
	$253.5	$295.6	$275.9

Net earnings per share were reduced $.33 in 1989, $.25 in 1988 and $.11 in 1987 attributable to dilution from shares issued in connection with the acquisition, consolidation of Praxis results and one-time acquisition costs in 1989 of approximately $8.

In December 1989 the company discovered that its Shulton subsidiary in Brazil had made unauthorized borrowings and incurred previously unreported losses in violation of company procedures. Accordingly, in the fourth quarter of 1989 the company recorded a provision of approximately $24 or $.25 per share as a reduction of earnings.

Also in 1989 the company acquired several small businesses accounted for as purchases, and sold its farm service centers in Canada. These transactions did not have a material effect either individually or in the aggregate on operating results.

In 1988 the company acquired Conap, Inc., a manufacturer of adhesives, sealants and encapsulants for the electronic, aerospace, defense, biomedical and computer markets. The acquisition was accounted for as a purchase and did not have a material effect on operating results.

Additionally, in 1988 Criterion Catalyst Company L.P., a global catalyst joint venture, was formed with Shell Oil Company and Shell International Chemical Company. Operating results from this business are now reflected in equity in net earnings of associated companies.

In 1987 the Company acquired several businesses for approximately $100, the most significant of which was the assets constituting the Coburn Professional Products business of Barnes-Hind, Inc., which primarily manufactures and sells intraocular lenses. The company also acquired two smaller medical related businesses. The acquisitions were accounted for as purchases and did not have a material effect either individually or in the aggregate on operating results.

Also in 1987 the company sold its Jacqueline Cochran fine fragrance and skin care businesses. Earnings of consolidated companies before taxes on income—continuing operations for 1987 include a gain of $12 from this sale. The effect of this item on earnings per share from continuing operations was approximately $.13.

4. Equity in Net Assets of and Advances to Associated Companies

The aggregate cost of investments in associated companies accounted for under the equity method of accounting (20% to 50% owned) was $83.9 and $78.4 at December 31, 1989 and 1988, respectively. Dividends of $8.2 in 1989, $4.8 in 1988 and $6.1 in 1987 were received from these companies. Summarized financial information for the company's investments in and advances to associated companies for the years ending December 31, 1989, 1988 and 1987, and as of December 31, 1989 and 1988 was as follows:

	1989	1988	1987
Net sales	$895.7	$837.5	$592.4
Gross profit	349.6	327.2	218.4
Net earnings	58.1	46.3	38.9
American Cyanamid Company's share of net earnings	$ 29.7	$ 24.2	$ 20.7

	1989	1988
Current assets	$436.3	$480.9
Noncurrent assets	337.1	269.8
Total assets	$773.4	$750.7
Current liabilities	$228.7	$236.1
Noncurrent liabilities	164.1	153.8
Equity	380.6	360.8
Total liabilities and equity	$773.4	$750.7
American Cyanamid Company's share of undistributed earnings	$123.2	$105.4

5. Inventories

	1989	1988
Finished goods	$ 448.7	$ 422.2
Work in progress	244.5	208.4
Raw materials and supplies	288.5	272.9
	981.7	903.5
Less reduction to LIFO cost	155.7	176.4
	$ 826.0	$ 727.1

At December 31, 1989 and 1988, LIFO inventories comprised approximately 55% of consolidated inventories. It is not practicable to determine the major components of inventory under the dollar value LIFO inventory method.

6. Plants, Equipment and Facilities

	1989	1988
Land, including mining land	$ 67.0	$ 61.8
Buildings	663.1	594.4
Machinery and equipment	2,401.8	2,216.2
Construction in progress	286.5	287.3
	$3,418.4	$3,159.7

(Millions of dollars except per share amounts)

7. Funded Debt

Funded debt, excluding the current portion, is as follows:

	1989	1988
Sinking fund debentures		
7.375% due 2001	**$ 59.7**	$ 62.5
8.375% due 2006	**79.7**	84.7
Promissory note		
8.75% due 1990 to 1998	**109.5**	123.0
Pollution control and industrial revenue bonds		
6.8% due 2000	**21.0**	21.0
6.5% due 2006	**22.4**	22.4
8.75% due 2013	**18.0**	18.0
5.5% to 8.75% due at various dates through 2020	**71.7**	72.4
Eurosterling notes,		
9.0% due 1991	**47.1**	55.5
Sundry obligations	**28.6**	34.0
	$457.7	$493.5

Annual maturities of funded debt and sinking fund requirements for the four years subsequent to December 31, 1990, are as follows: 1991—$70.7; 1992—$33.4; 1993—$27.5, and 1994—$26.9.

The 8.75% promissory note contains certain restrictions, including limitations on the payment of dividends. Under the dividend limitation, the amount of earnings employed in the business at December 31, 1989, which may be applied to the payment of cash dividends is limited to $811.4.

8. Stockholders' Equity

Authorized Capital—Authorized capital includes 10,000,000 shares of preferred stock with a par value of $1 per share, none of which is outstanding, and 300,000 shares of which are reserved for issuance as Series A Junior Participating Preferred Stock in connection with the Stockholder Rights Plan described elsewhere in this note.

Common Stock and Treasury Stock:

	Common Stock		Treasury Stock	
	Shares	Amount	Shares	Amount
Balance at December 31, 1986	50,659,109	$253.3	3,118,498	$(184.1)
Adjustment for 2-for-1 stock split (Note 1)	50,659,109	253.3	3,118,498	–
Purchased	–	–	2,745,419	(119.3)
Issued in a sale to the public	523,534	2.6	–	–
Issued pursuant to stock option plans	22,357	.2	(589,211)	20.5
Issued pursuant to incentive compensation plan	–	–	(7,423)	.3
Warrants exercised	5,995	–	–	–
Balance at December 31, 1987	101,870,104	509.4	8,385,781	(282.6)
Cancelled	(47,886)	(.2)	–	–
Purchased	–	–	870,715	(41.8)
Issued pursuant to stock option plans	51,432	.2	(544,051)	21.0
Issued pursuant to incentive compensation plan	–	–	(80,691)	3.1
Warrants exercised	29,775	.1	–	–
Balance at December 31, 1988	101,903,425	509.5	8,631,754	(300.3)
Purchased	–	–	163,000	(8.4)
Issued in a sale to the public	–	–	(1,250,000)	39.5
Issued pursuant to stock option plans	452,978	2.3	(488,820)	19.7
Issued pursuant to incentive compensation plan	–	–	(21,805)	.9
Warrants exercised	199,317	1.0	–	–
Balance at December 31, 1989	102,555,720	$512.8	7,034,129	$(248.6)

In 1985 the company announced its intention to purchase eight to ten million shares (on a post-split basis) of its outstanding common stock. In connection with the Praxis acquisition, this program has been suspended and in October 1989, 1,250,000 common shares previously acquired by the company were sold in a public offering. The company is repurchasing treasury shares over a period of time to fulfill its obligations under its stock option plans. Common stock excludes 194,208 issued shares held by a subsidiary (adjusted for 2-for-1 stock split).

Stock Options and Warrants—Under the company's stock option plans, key employees may be granted ten-year options to purchase common stock at not less than 100% of market value on the date of grant. At December 31, 1989, 6,034,698 shares were reserved for stock options outstanding or available to be granted. The majority of options are exercisable in cumulative installments of one-third of the number of shares commencing one year after date of grant and annually thereafter.

For options and warrants exercised prior to the public offering in 1989, and during 1988 and 1987, the difference between the proceeds and cost of treasury stock or par value of the company's common stock was recorded in earnings employed in the business, net of related tax benefits of $2.0 in 1989, $3.0 in 1988 and $1.3 in 1987. Differences arising subsequent to the public offering in 1989 were recorded in additional paid-in capital.

Selected stock option and warrant data (adjusted for 2-for-1 stock split), are as follows:

	1989	1988	1987
Options exercised during year:			
Number of shares	**1,012,892**	758,686	675,371
Option price per share	**$9.70-49.25**	$6.93-46.25	$6.93-34.75
Options outstanding at December 31:			
Number of shares	**3,880,626**	3,967,621	3,465,513
Option price per share	**$6.93-52.50**	$6.93-51.72	$6.93-53.56
Options exercisable at December 31	**2,131,396**	1,867,443	1,769,290
Warrants exercised during year:			
Number of shares	**199,317**	29,775	5,995
Warrant price per share	**$6.93-19.50**	$6.93	$6.93
Warrants outstanding at December 31:			
Number of shares	**–**	199,317	229,092
Warrant price per share	**–**	$6.93-19.50	$6.93-81.27
Warrants exercisable at December 31	**–**	63,967	229,092

Additional Paid-in Capital—Changes in 1989 are attributable to the issuance of shares in a public offering, and for stock options and warrants exercised subsequent to the public offering net of related tax benefits of $.8. The elimination of paid-in capital in 1987 was attributable to the issuance of shares for the stock split.

Accumulated Translation Adjustment—Changes in the accumulated translation adjustment are as follows:

	1989	1988	1987
By category:			
Translation adjustments	**$33.1**	$ (9.4)	$(70.6)
Hedge transactions and other, net	**–**	–	(.2)
Increase (decrease) in accumulated translation adjustments	**$33.1**	$ (9.4)	$(70.8)
By geographic area:			
Western Hemisphere	**$ (3.5)**	$(11.0)	$ (3.7)
Eastern Hemisphere	**36.6**	1.6	(67.1)
Increase (decrease) in accumulated translation adjustments	**$33.1**	$ (9.4)	$(70.8)

Stockholder Rights Plan—In March 1986 the company's Board of Directors declared a distribution of one-half of a Right (as adjusted for a 2-for-1 stock split in 1987) for each outstanding share of Common Stock. The Rights are currently attached to the certificates representing Common Stock and will not be transferable apart from shares of Common Stock until a distribution of the Rights (a "Distribution") occurs. A Distribution will occur on the earlier of (i) ten days following the date of public announcement that any person, entity or group has acquired 20% or more of the outstanding shares of Common Stock or (ii) ten days following commencement of a tender offer for 30% or more of the outstanding shares of Common Stock.

Prior to a Distribution, each full Right entitles the registered holder to purchase one two-hundredth of a share of Series A Junior Participating Preferred Stock at a price of $200, subject to adjustment. After a Distribution has occurred, if, upon a merger in which the company is the surviving corporation, any person acquires 50% of the outstanding shares

continued

(Millions of dollars except per share amounts)

of Common Stock, or certain other events occur when there is a 20% holder of Common Stock, each holder of a full Right (other than Rights held by an acquiring person) will have the right to receive on exercise four shares of Common Stock at a price equal to 25% of the market price of the Common Stock. Upon the acquisition of the company or more than 50% of its assets, the holder of a full Right will have the right to receive upon exercise common stock of the acquiring party having a value of two times the exercise price of the Right. The Rights are redeemable at a price of $.02 per Right prior to the thirtieth day following an acquisition by any person or group of 20% of the outstanding shares of Common Stock and will expire in March 1996. This description of the Plan is qualified and governed by the terms and conditions of the Rights Agreement, as amended in 1986 and as further amended in 1987 (to account for the 2-for-1 stock split) by the Board of Directors.

9. Contingent Liabilities and Commitments

Rental expense under property and equipment leases was $61.6 in 1989, $57.2 in 1988 and $50.3 in 1987. Estimated future minimum rental expenses under property and equipment leases that have initial or remaining noncancellable lease terms in excess of one year as of December 31, 1989, are: 1990—$25.4; 1991—$16.1; 1992—$8.9; 1993—$5.5; 1994—$3.2; later years—$14.4 in the aggregate. In general, the company accounts for leases as operating leases, which in all material respects complies with Statement of Financial Accounting Standards No. 13.

The company and its subsidiaries are parties to numerous suits and claims arising out of the conduct of business, many of which involve very large damage claims including claims for punitive damages. Included among such suits are approximately 108 involving personal injury or death occurring in connection with administration of the company's DTP (diphtheria-tetanus-pertussis) and oral polio vaccines. Also included are approximately 186 suits involving staining of teeth by the administration of tetracycline antibiotics to young children in the 1960s. The company has received notices of claims by large numbers of farmers in the Midwest in respect of damage to the 1989 corn crop allegedly resulting from application of its *Scepter* herbicide to soybean crops in the previous year. Similar claims were received in respect of the 1988 corn crop although from substantially fewer claimants. Most of the claims have been settled; of those which remain pending, several are the subject of litigation. The company is currently a party to, or otherwise involved in, legal proceedings directed at cleanup of 59 Superfund sites. No estimate can be given of the company's aggregate liabilities with respect to these sites. In the opinion of management, the ultimate liability resulting from all pending suits and claims (after taking into account the limited insurance coverage applicable to the events giving rise to such pending suits and claims) will not have a material adverse effect upon the consolidated financial position of the company and its subsidiaries.

10. Taxes on Income

Taxes on income are based on earnings of consolidated companies before taxes on income—continuing operations as follows:

	1989	1988	1987
Domestic	$188.0	$147.1	$140.2
Foreign	260.9	292.3	233.8
	$448.9	$439.4	$374.0

The components of the provision are:

	1989	1988	1987
Current:			
Federal	$ 78.9	$ 27.2	$ 13.7
Foreign	95.8	114.0	105.1
Other	7.2	14.5	13.3
	181.9	155.7	132.1
Deferred:			
Federal	1.6	5.1	(6.3)
Foreign and other	3.1	7.2	4.6
	4.7	12.3	(1.7)
Total taxes on income	$186.6	$168.0	$130.4

Domestic and foreign earnings of consolidated companies before taxes on income—continuing operations include all income derived from continuing operations in the respective U.S. and foreign geographic areas, whereas provisions for taxes on income include all income taxes payable to U.S., foreign and other governments as applicable, regardless of the situs in which the taxable income is generated.

One of the principal components of deferred tax provisions in 1989, 1988 and 1987 relates to estimated litigation costs not currently deductible for tax purposes.

The principal components of deferred tax provisions, other than estimated litigation costs, are the excess of tax over book expenses for employee benefits (1988—$14.1, 1987-$4.3 and the excess of tax over book depreciation (1989—$12.5, 1988—$9.5, 1987—$3.6).

A reconciliation between the company's effective tax rate and the U.S. federal income tax rate for continuing operations is as follows:

	1989	1988	1987
Federal income tax rate	34.0%	34.0%	40.0%
Income subject to other than the federal income tax rate	1.3	3.9	(2.2)
Net operating losses for which no tax benefit is currently available*	3.1	.8	–
Other, net	3.2	(.5)	(2.9)
Effective tax rate	41.6%	38.2%	34.9%

*Primarily operating losses of the company's Shulton subsidiary in Brazil and preacquisition operating losses of Praxis.

11. Other Financial Information

Included in accounts payable and accrued expenses at December 31, 1989, and 1988, respectively, are trade payables of $364.8 and $359.3, pensions and other employee benefits of $86.4 and $86.2, checks outstanding in excess of certain domestic cash balances of $38.4 and $44.0 and other accrued expenses of $517.9 and $564.4.

At December 31, 1989, the company had $560.0 of domestic short-term lines of credit available.

Maintenance and repairs were $158.6 in 1989, $149.5 in 1988 and $142.3 in 1987. Taxes other than income and payroll taxes were $72.7 in 1989, $66.8 in 1988 and $61.2 in 1987. Advertising was $428.7 in 1989, $397.4 in 1988 and $378.9 in 1987. Foreign exchange losses were $29.9 in 1989, $13.5 in 1988 and $9.2 in 1987.

Cash payments during the years ended December 31, 1989, 1988 and 1987 included interest (net of amounts capitalized) of $140.9, $92.2 and $77.5 and income taxes of $166.1, $151.8 and $112.3, respectively.

Included in consolidated earnings employed in the business at December 31, 1989 and 1988, are undistributed earnings of non-U.S. subsidiaries of $691.9 and $627.2, respectively.

12. Retirement Plans and Postretirement Benefits

The company and its subsidiaries have various pension plans covering substantially all employees in the United States and Canada and certain employees in foreign countries. Plans covering most employees provide benefits based on years of service and the employee's final average compensation. The company generally makes contributions to the plans at least equal to the amounts accrued for pension expense to the extent such contributions are currently deducted for tax purposes or as required by local employee benefit and tax laws.

The company adopted the provisions of Statement of Financial Accounting Standards (FAS) No. 87 for all pension plans in the United States in 1987 and for its principal foreign plans in 1988. The effect of these changes was not material to the consolidated financial statements.

continued

(Millions of dollars except per share amounts)

The combined FAS No. 87 pension expense for 1989, 1988 and for United States plans in 1987 included the following components:

	1989	1988	1987
Service cost-benefits earned during the period	$ 27.9	$ 26.8	$ 23.4
Interest cost on projected benefit obligation	105.1	98.8	79.7
Actual return on assets	(202.5)	(115.4)	(5.0)
Net amortization and deferral	101.3	19.8	(73.7)
Net pension expense	$ 31.8	$ 30.0	$ 24.4

The following table sets forth the combined funded status of U.S. plans at November 30, 1989 and 1988, and foreign plans at September 30, 1989 and 1988, and the amounts recognized in the company's consolidated balance sheets at December 31, 1989 and 1988. This table excludes accrued pension cost for foreign unfunded plans of $27.8 in 1989 and $24.7 in 1988 and the related projected benefit obligations of $36.8 in 1989 and $34.2 in 1988.

	1989	1988
Actuarial present value of benefit obligations:		
Vested benefit obligation	$1,023.8	$ 946.0
Accumulated benefit obligation	$1,048.7	$ 982.5
Projected benefit obligation	$1,175.5	$1,109.8
Plan assets at fair value, primarily listed stocks and U.S. bonds	1,240.7	1,096.7
Projected benefit obligation (under)/over plan assets	(65.2)	13.1
Unrecognized net gain (loss)	17.5	(70.8)
Unrecognized prior service cost	(23.3)	(21.6)
Unrecognized transition asset	63.1	73.7
(Prepaid) accrued pension cost recognized on balance sheet	$ (7.9)	$ (5.6)

The following table sets forth the assumptions used to determine the 1989 and 1988 projected benefit obligation and the long-term rate of return on plan assets used to determine pension costs accounted for under FAS No. 87.

Assumed discount rate	9.5%
Assumed rates for future compensation increases	4.5%-9.5%
Expected long-term rate of return on plan assets	9.0%

Total pension expense was $32.1 in 1987.

In addition to pension benefits, employees may become eligible for postretirement health care and life insurance benefits. The expense of such benefits is recognized as the related costs are paid and amounted to $27.5 in 1989, $24.8 in 1988 and $20.0 in 1987.

13. Operations by Business Groups and Geographic Areas

The following commentary relates to the tables appearing on pages 47 and 48.

The company and its subsidiaries are engaged primarily in the manufacture and sale of a highly diversified line of medical, agricultural, chemical and consumer products (Shulton Group).

Sales, at cost, between business groups were immaterial. Intergeographic sales are made at prices which provide reasonable and appropriate returns based upon the respective properties employed and businesses conducted, and applicable eliminations have been applied to the intergeographic transactions.

Operating earnings consist of total net sales less operating expenses. In computing operating earnings, none of the following items has been added or deducted: general corporate expenses, interest expense, investment income, equity in net earnings of associated companies and taxes on income. Operating earnings of the Shulton Group in 1987 include a gain of $12.0 from the sale of the company's Jacqueline Cochran fine fragrance and skin care businesses.

Identifiable assets are those assets used in the company's operations in each business group or geographic area. Corporate assets are primarily cash, marketable securities and construction in progress.

	1989	1988	1987
Net sales			
Medical	$1,975.5	$1,831.0	$1,640.7
Agricultural	1,100.8	1,065.5	918.7
Chemicals	1,140.0	1,101.6	1,041.5
Shulton	608.7	594.1	567.8
	$4,825.0	$4,592.2	$4,168.7
Operating earnings			
Medical	$ 325.5	$ 272.2	$ 213.5
Agricultural	187.8	166.7	124.7
Chemicals	47.7	47.4	68.2
Shulton	18.0	52.0	57.5
	579.0	538.3	463.9
General corporate expenses	(55.1)	(52.7)	(57.7)
Interest expense, net of investment income	(75.0)	(46.2)	(32.2)
Earnings of consolidated companies before taxes on income—continuing operations	$ 448.9	$ 439.4	$ 374.0
Equity in net earnings of associated companies			
Medical	$ 7.0	$ 3.8	$ 3.0
Agricultural	.8	1.5	.5
Chemicals	21.9	18.9	17.2
	$ 29.7	$ 24.2	$ 20.7
Identifiable assets			
Medical	$1,493.5	$1,347.2	$1,304.5
Agricultural	1,011.3	786.0	701.2
Chemicals	767.4	732.7	685.9
Shulton	253.8	237.9	217.2
	3,526.0	3,103.8	2,908.8
Equity in net assets of and advances to associated companies			
Medical	36.6	38.1	27.5
Agricultural	4.6	7.6	4.4
Chemicals	167.2	145.2	80.0
	208.4	190.9	111.9
Corporate assets	1,236.8	1,355.0	1,173.3
Total assets	$4,971.2	$4,649.7	$4,194.0
Depreciation, depletion and amortization			
Medical	$ 80.6	$ 80.5	$ 66.0
Agricultural	52.9	46.7	45.2
Chemicals	80.6	76.3	72.2
Shulton	9.2	8.6	8.4
Corporate	10.0	11.0	10.2
	$ 233.3	$ 223.1	$ 202.0
Capital additions			
Medical	$ 169.1	$ 137.8	$ 124.5
Agricultural	101.4	99.5	47.0
Chemicals	102.2	120.4	97.3
Shulton	16.9	19.3	15.4
Corporate	8.0	4.5	5.6
	$ 397.6	$ 381.5	$ 289.8

GEOGRAPHIC AREAS

	1989	1988	1987
Net sales to unaffiliated customers			
United States	$2,964.4	$2,831.3	$2,620.8
Other Western Hemisphere	537.3	503.6	433.3
Eastern Hemisphere	1,323.3	1,257.3	1,114.6
	$4,825.0	$4,592.2	$4,168.7
Intergeographic sales			
United States	$ 275.5	$ 260.5	$ 211.4
Other Western Hemisphere	87.6	86.3	85.5
Eastern Hemisphere	59.1	67.5	61.1
Eliminations	(422.2)	(414.3)	(358.0)
	—	—	—
Operating earnings			
United States	$ 265.3	$ 215.9	$ 186.8
Other Western Hemisphere	65.0	73.2	74.6
Eastern Hemisphere	248.7	249.2	202.5
	579.0	538.3	463.9
General corporate expenses	(55.1)	(52.7)	(57.7)
Interest expense, net of investment income	(75.0)	(46.2)	(32.2)
Earnings of consolidated companies before taxes on income—continuing operations	$ 448.9	$ 439.4	$ 374.0
Equity in net earnings of associated companies			
United States	$ 8.9	$ 2.2	$ 7.5
Other Western Hemisphere	.7	.8	.6
Eastern Hemisphere	20.1	21.2	12.6
	$ 29.7	$ 24.2	$ 20.7
Identifiable assets			
United States	$2,301.1	$1,986.8	$1,853.8
Other Western Hemisphere	355.9	318.0	283.3
Eastern Hemisphere	869.0	799.0	771.7
	3,526.0	3,103.8	2,908.8
Equity in net assets of and advances to associated companies			
United States	120.3	107.3	53.1
Other Western Hemisphere	2.3	3.7	2.7
Eastern Hemisphere	85.8	79.9	56.1
	208.4	190.9	111.9
Corporate assets	1,236.8	1,355.0	1,173.3
Total assets	$4,971.2	$4,649.7	$4,194.0

MANAGEMENT STATEMENT

Your management has prepared and is responsible for the accompanying consolidated financial statements. These statements have been prepared in conformity with generally accepted accounting principles appropriate in the circumstances and necessarily include some amounts based on management's estimates and judgments. All financial information in this annual report is consistent with that in the consolidated financial statements.

The company maintains a system of internal accounting controls designed to provide reasonable assurance that assets are safeguarded from loss or unauthorized use, transactions are executed in accordance with management's authorization, and that accounting records may be relied upon for the preparation of financial statements. The concept of reasonable assurance is based upon the premise that the costs of controls should not exceed the benefits derived from them. The system is monitored by a corporate staff of traveling internal auditors.

KPMG Peat Marwick, independent auditors, are retained to audit the company's consolidated financial statements. Their accompanying report is based on an audit conducted in accordance with generally accepted auditing standards, including a review of internal accounting controls and tests of accounting procedures and records.

The Audit Committee of the Board of Directors, composed solely of nonmanagement directors, meets periodically with management, the internal auditors and the independent auditors to review internal accounting control, auditing and financial reporting matters. Both the internal auditors and the independent auditors have full and free access to the Audit Committee.

INDEPENDENT AUDITORS' REPORT

KPMG Peat Marwick

The Board of Directors and Stockholders
American Cyanamid Company:

We have audited the accompanying consolidated balance sheets of American Cyanamid Company and subsidiaries as of December 31, 1989 and 1988, and the related consolidated statements of earnings, earnings employed in the business, and cash flows for each of the years in the three-year period ended December 31, 1989. These consolidated financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of American Cyanamid Company and subsidiaries at December 31, 1989 and 1988, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 1989, in conformity with generally accepted accounting principles.

KPMG PEAT MARWICK

Short Hills, NJ
February 6, 1990

(Millions of dollars except per share amounts)

Earnings

	1989	1988	1987	1986	1985
Net sales	**$4,825**	$4,592	$4,169	$3,823	$3,542
Manufacturing cost of sales	**2,338**	2,293	2,135	2,089	2,087
Research and process development expense	**407**	374	323	284	254
Selling, advertising and administrative expenses	**1,577**	1,462	1,343	1,182	1,065
Interest, royalties and other income, net	**95**	85	90	97	87
Interest expense	**149**	108	85	86	84
Taxes on income	**187**	168	130	89	25
Earnings of consolidated companies —continuing operations	**262**	272	243	190	114
Equity in net earnings of associated companies	**30**	24	21	15	10
Discontinued operations	**—**	—	12	—	9
Net earnings	**292**	296	276	205	133
Per share of common stock:					
Earnings from continuing operations	**3.12**	3.16	2.79	2.15	1.25
Discontinued operations	**—**	—	.12	—	.09
Net earnings	**3.12**	3.16	2.91	2.15	1.34
Dividends	**1.3125**	1.1625	1.025	.95	.95
Average number of shares of common stock outstanding (used in calculating earnings per share)	**93.7**	93.4	94.8	95.6	99.1

Other Data

	1989	1988	1987	1986	1985
Additions to plants, equipment and facilities	**$ 398**	$ 381	$ 290	$ 267	$ 204
Current assets	**2,447**	2,311	2,180	1,914	1,969
Current liabilities	**1,786**	1,697	1,411	1,129	999
Working capital	**661**	614	769	785	970
Plants, equipment and facilities	**3,418**	3,160	2,919	2,682	2,547
Net depreciated cost	**1,757**	1,588	1,418	1,273	1,128
Total assets	**4,971**	4,650	4,194	3,695	3,415
Funded debt	**458**	493	573	586	571
Stockholders' equity	**2,321**	2,102	1,923	1,743	1,647

Financial Condition

Liquidity of a company may be measured by its liquid asset position, its ability to generate funds from operations and its ability to arrange external financing.

At December 31, 1989, the company had available for its operations over $480 million in cash and cash equivalents, marketable securities and time deposits. This source of liquidity, combined with other assets, convertible to cash over a relatively short period of time, provides the company with the capability to satisfy normal cash requirements from its own resources. The ratio of current assets to current liabilities is 1.37 to 1.

Net cash flows from operating activities in 1989 totaled about $176 million. This amount, combined with existing cash and cash equivalents, provided the company with adequate resources for capital expenditures, dividend payments to shareholders and other cash requirements.

In addition to the cash flows from operating activities and liquid assets discussed above, the company has $560 million in unutilized lines of credit in the United States. These lines are available to satisfy cash requirements, should such a need arise, or to support commercial paper borrowings, and are supplemented by a variety of other credit facilities maintained by foreign subsidiaries.

The company maintained a relatively consistent level of debt financing. At December 31, 1989, aggregate debt financing was $1.2 billion, equal to 34.4% of total debt and equity and was comprised of short-term borrowings of about $741 million and funded debt, including the portion due within one year, of $477 million.

The company believes it is capable of raising substantial amounts of short-term and long-term debt in the United States and other financial markets, if necessary. Based on projected internal cash generation, current levels of liquid assets and the credit capacity to support additional financing, the company expects to continue to be able to competitively finance operating cash requirements and planned capital expenditures for 1990, including the amount already committed at December 31, 1989, of about $56 million. All planned capital expenditures are intended either to provide necessary capacity, to improve the efficiency of production units, to modernize or replace older facilities, or to install equipment for protection of the environment.

Reflecting industry trends generally, as well as the effects of our vaccine liability litigation, the company's liability insurance coverage (particularly product and environmental liability) has in the past several years been subject to substantially higher deductibles, lower overall limits and more restrictive coverage than had been historically available. In addition, such insurance is now available only on a "claims made" rather than "occurrence" basis, which means that the claim must be made, rather than the event giving rise to the liability occurring, within the policy period. Deductible amounts are such that the company must regard itself, for practical purposes, as "self-insured" with respect to most events the date of occurrence of which is after June 30, 1986, and accordingly, must provide appropriate accruals for such matters. Limits on coverage in excess of such deductibles also increase exposure to catastrophic events.

On February 22, 1990, the company announced the engagement of an investment banker to explore alternatives for its consumer products business including divestiture or joint venture of the Shulton Group.

The company considers its December 31, 1989, financial condition and anticipated 1990 operating results to be of the most significance in assessing its liquidity. Importance also can be attached to prior years' data which evidence an ability to maintain liquidity over a period of time. Data for 1988 and 1987 corresponding to the 1989 data discussed above are readily obtainable from the consolidated financial information included in this annual report.

Results of Operations

Net sales in 1989 were $4.83 billion, up 5% from $4.59 billion in 1988. **Earnings from continuing operations** and **net earnings** in 1989 were $292.0 million or $3.12 per share, down 1% from $295.6 million or $3.16 per share in 1988.

The slight decrease in net earnings reflects increased sales and substantially higher operating results of the Medical and Agricultural Groups offset by a significant decline in the results of the Shulton Group and increased interest costs. In addition, Chemicals Group sales increased but operating results remained relatively even with the previous year. The record operating results of the Medical Group were due to increased sales of most major product lines. The record Agricultural Group performance was largely attributable to continuing sales growth of the imidazolinone herbicides. The significant decrease in Shulton Group results was due to losses related to the company's Shulton subsidiary in Brazil and reduced performance of the Group in the United States. The company's international businesses reflected increased sales, despite the weakening of foreign currencies compared to the U.S. dollar.

Net sales in 1988 were $4.59 billion, up 10% from $4.17 billion in 1987. **Earnings from continuing operations** in 1988 were $295.6 million or $3.16 per share, up 12% from $264.3 or $2.79 per share in 1987. **Net earnings** in 1988 were also $295.6 million or $3.16 per share, up 7% from $275.9 million or $2.91 per share in 1987. See Note 2 to the Consolidated Financial Statements for information relating to discontinued operations.

Earnings from continuing operations increased substantially in 1988. The improvement was attributable to increased sales and operating results of the Medical and Agricultural Groups offset by a decline in operating results of our Chemicals Group. Shulton Group sales and operating results excluding the 1987 gain from the sale of the Jacqueline Cochran fine fragrance and skin care businesses of $12.0 million, increased as compared to the previous year. Although Chemicals Group sales increased, operating results declined as a result of significantly higher environmental charges and strong competitive pressures to the extent that the Group was unable to offset higher manufacturing costs with increased prices. Other factors contributing to the company's improved results were the continuing benefits of programs focused on new product development, the divestiture of less profitable product lines and continued cost containment. International results also contributed to the improved results. The company benefited from the strength of foreign currencies compared to the U.S. dollar and increased sales volume in overseas markets.

Research and process development expenditures continue to increase each year as part of the company's commitment to provide new products and technologies in growth areas.

Foreign exchange losses reduced earnings by $29.9 million in 1989, $13.5 million in 1988 and $9.2 million in 1987. The losses were generated primarily by operations in hyperinflationary economies, principally Latin America. In addition, translation of global subsidiary earnings statements at reduced foreign currency exchange rates resulting from the strengthening U.S. dollar had a further adverse effect on consolidated revenues and earnings in 1989. Translation of such earnings statements at higher foreign currency exchange rates in 1988 and 1987 versus previous years had a favorable effect on consolidated revenues and earnings in such years.

The impact of inflation on the company is considered insignificant as the rate of inflation has declined in recent years.

Taxes on income as a percent of earnings were 41.6%, an increase from 38.2% in 1988 which increased from 34.9% in 1987. Taxes on income are discussed further in Note 10 to the Consolidated Financial Statements.

In December 1989, the Financial Accounting Standards Board issued Statement No. 103, "Accounting for Income Taxes—Deferral of the Effective Date of FASB Statement No. 96," which delays the effective date of FAS No. 96 to years beginning after December 15, 1991. Accordingly, at the present time, the company intends to defer adoption of FAS No. 96 until January 1, 1992. On a preliminary basis, if income tax rates remain at the current level, and subject to resolution of pending implementation issues before the FASB, it is estimated that the adoption of FAS No. 96 will have an immaterial effect on both the consolidated results of operations and financial position of the company and its subsidiaries.

Business groups' sales and operating earnings, along with certain other financial data are set forth in Note 13 to the Consolidated Financial Statements, and are discussed below.

Medical Group sales increased and operating *earnings were significantly higher as compared* to 1988. The results reflect increased sales of Lederle's pharmaceuticals, especially antibiotics; biologicals; consumer health products and medical devices in both domestic and international markets. Sales in the antibiotic area were led by *Suprax* cefixime, which was launched in United States markets during the year, and *Minocin* minocycline, which performed well in both domestic and international markets. Sales of the anticancer agent *Novantrone* mitoxantrone increased as compared to the previous year. Consumer health product sales increases were led by *Centrum* multivitamins, which set a new sales record. The Medical Device business also contributed to the improved results with increased sales of Davis + Geck wound closure products, Storz ophthalmic products and Acufex orthopaedic devices. In November 1989, we acquired Praxis Biologics, Inc. and formed a new operating unit, Lederle-Praxis Biologicals, to coordinate the vaccines and biologicals businesses of Lederle and Praxis.

In 1988 sales and operating earnings increased substantially reflecting strong performances in both domestic and international markets. The increases were due to significantly higher sales of Lederle's antibiotics, anticancer agents, surgical sutures and medical devices. In antibiotics, global sales of *Minocin* minocycline and international sales of *Pipracil* piperacillin increased. Sales of the anticancer agents, *Novantrone* mitoxantrone and Methotrexate, were higher than the previous year. The medical device business contributed to the improved performance with increased sales by Storz Instrument Company, Acufex Microsurgical, Inc. and Davis + Geck, the Group's sutures business. Lederle's standard product sales were about even with the previous year while sales of consumer health products, benefiting from a new *Centrum* multivitamin formulation, increased in 1988. During the year, marketing responsibility for Lederle U.S. consumer health products was reassigned to the Shulton Group to take advantage of the synergy between the Lederle and Shulton consumer markets. However, the worldwide health products business continues to be reported within the Medical Group. Effective as of January 1, 1988, the company reduced, by 50%, the amount of its product liability surcharge on sales of DTP vaccine and added the required per dose excise tax to the price of DTP vaccines.

Agricultural Group sales and operating earnings increased in 1989 reflecting strong performances by the imidazolinone product line in both domestic and international markets. During the year we introduced *Pursuit* herbicide in the United States. *Pursuit* is used for weed control in soybeans and other leguminous crops primarily in the mid to northern United States. *Scepter* herbicide now is marketed in the United States for weed control in soybeans primarily in the mid to southern regions. Combined worldwide sales of the two products were higher for the year than sales of *Scepter* alone in 1988. Sales of the imidazolinones *Assert* and *Arsenal* herbicides also increased in 1989. Other crop protection chemicals which contributed to the performance were *Prowl* herbicide and *Counter* insecticide. In the animal nutrition and health area, *Cygro* coccidiostat sales increased.

In 1988 sales and operating earnings were significantly higher than in the previous year. The results reflected higher sales of crop protection chemicals in both domestic and international markets. The entire imidazolinone product line including *Assert*, *Scepter* and *Squadron* herbicides, achieved substantial sales increases. Sales of animal nutrition and health products increased, reflecting improved performances by *Avotan* growth promoter and *Aureomycin* chlortetracycline feed supplements. Vegetative and pest control chemicals sales also increased in 1988 due to strong demand for Malathion in the United States and North Africa. In 1988 we shut down our ammonium nitrate facility at Hannibal, Missouri. The Group's

continued

fertilizer business now is comprised primarily of two operating ammonia plants with about 40% of their output for nonfertilizer uses.

Chemicals Group sales increased in 1989 but operating earnings were about even with the previous year despite some improvement in the unfavorable cost-price trend affecting the Group. The results reflect increased U.S. sales of acrylonitrile, carbide products, rubber chemicals, sulfuric acid, *Cyalume* chemical light products, acrylic fibers, paper and water-treating chemicals, organic flocculants, methylated crosslinking resins and urethanes. Sales of adhesives, sealants and encapsulants, produced by Conap Inc., which we acquired in 1988, also rose in 1989. In our international business, sales of acrylonitrile, carbide products, mining chemicals, organic flocculants, rubber chemicals and engineered materials increased. The Group's performance was negatively impacted by costs associated with expansion of the melamine plant in Louisiana and continued investment in the development of new products and technology. Other factors affecting the performance of the Group were adverse foreign exchange impacts in Latin America and depressed earnings of our acrylic fibers business as a result of lower overseas demand for the product and increased energy costs.

In 1988 sales increased but operating earnings were significantly lower. Substantially higher environmental charges as a result of continuing efforts to clean up certain of the Group's plant sites, and raw material price increases resulting in higher manufacturing costs, which could not be offset by increased prices, contributed to the decline in operating earnings. Earnings also were adversely affected by increased investment in development efforts associated with both new technology and identified growth products: urethanes, electronic chemicals, metal-coated fibers and engineered materials. Sales of these identified growth products have developed more slowly than expected due to delays in government funding of aerospace projects and a longer than expected product qualification process. Other factors which, neither individually nor in the aggregate, significantly affected operating results were the transfer of the catalyst business to the new 50% owned associated company, Criterion Catalyst Company L.P., the operating results of which are now reflected in equity earnings; the sale of the remainder of the Group's dyes business and the acquisition of Conap, Inc. Sales increased in several base businesses in 1988 such as acrylamide and the specialty products derived from it, including paper, water treating and mining chemicals; process chemicals; composites; industrial adhesives; polymer chemicals; and *Cyalume* chemical light products. International sales improved in nearly every area, with process chemicals showing the best year-to-year improvement.

Shulton Group sales increased but operating earnings declined significantly in 1989. The sales performance was attributable to increased sales of household products including *Combat* brand products and *Pine-Sol* liquid cleaner in both domestic and international markets. In the toiletries area, sales of *Old Spice* deodorant and antiperspirant products and *Breck* shampoo also increased. Operating results declined due to losses related to the Group's subsidiary in Brazil and in the United States due to the negative effects of inventory reductions by retailers, higher promotional spending in response to intense competition and higher introductory costs associated with new products.

In 1988 sales increased but operating earnings declined. However, excluding the 1987 gain from the sale of the Jacqueline Cochran fine fragrance and skin care businesses of $12.0 million, operating earnings increased about 14% from previous year results. Sales increased in nearly all major product categories. *Combat* roach and ant insecticides increased their share of the United States consumer insecticide market. *Pine-Sol* liquid cleaner sales continued to grow, especially in international markets. The Group increased its *Old Spice* toiletries market share in the United States men's fragrance market and maintained or improved market share in key international markets. Sales of *Pierre Cardin* men's fragrance also increased in 1988.

Operations

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INVESTOR INFORMATION

The Company
American Cyanamid Company is a publicly held company incorporated under the laws of the state of Maine. It is a research-based biotechnology and chemical company which develops medical, agricultural, chemical and consumer products and manufactures and markets them throughout the world. Cyanamid operates 19 research laboratories and approximately 100 plants, and its 3,000 products are sold by its divisions and subsidiaries in more than 135 countries throughout the world.

World Headquarters
Cyanamid's world headquarters is located at One Cyanamid Plaza, Wayne, New Jersey 07470. The company's main telephone number is (201) 831-2000. Telex: 219136-ACYIN UR. TWX: 7109883045.

Annual Meeting
The annual meeting of stockholders is held each year on the third Monday in April. The 1990 annual meeting will be held at 11 a.m. on Monday, April 16, in the Monhegan Room of the Sheraton Inn, South Portland, Maine.

Stock Exchanges
The common stock of American Cyanamid Company is traded principally on the New York Stock Exchange (the ticker symbol is ACY). The stock also is listed on stock exchanges in Amsterdam, Basle, Frankfurt, Geneva, Lausanne, London and Zurich. Options on the stock are traded on the American Stock Exchange.

Stock Transfer Agent and Registrar
The stock transfer agent and registrar for Cyanamid's stock is The Chase Manhattan Bank, N.A. Stockholders who wish to transfer their stock, or change the name in which the shares are registered, should contact:

Shareholder Services
The Chase Manhattan Bank, N.A.
1 New York Plaza
New York, New York 10081
(212) 676-5754

Stockholder Records
Stockholder records are maintained by Cyanamid at its world headquarters. Questions concerning individual stockholder accounts, including dividends, should be addressed to:

Stockholder Records Department
American Cyanamid Company
One Cyanamid Plaza
Wayne, New Jersey 07470
(201) 831-3586

Automatic Dividend Reinvestment
There is available to all stockholders of record the convenience of an automatic dividend reinvestment service in which dividends are automatically reinvested in Cyanamid common stock. Participants also may add cash for the purchase of additional shares. Under the plan, Cyanamid pays any related bank charges and brokerage commissions. A detailed statement of each stockholder's account is mailed after each investment.

Any stockholder who is not enrolled in the plan and would like to be should contact the Stockholder Records Department at Cyanamid. Participants who have questions regarding their accounts should contact:

Stockholder Records Department
American Cyanamid Company
One Cyanamid Plaza
Wayne, New Jersey 07470
(201) 831-3586

Dividend Payment Schedule
Dates for 1990 dividends, as and when declared by the Board of Directors, are scheduled as follows:

- March 30, for stockholders of record February 28,
- June 29, for stockholders of record May 30,
- September 28, for stockholders of record August 29,
- December 21, for stockholders of record November 21.

Interim Reports
Cyanamid's fiscal year is the calendar year. Interim reports covering the first, second and third quarter financial results, along with other company news, are mailed to stockholders as soon as possible after the close of the quarter.

Form 10-K
A copy of the company's 1989 annual report on Form 10-K, including financial statements and schedules, as filed with the Securities and Exchange Commission, is available free of charge to Cyanamid stockholders upon request. Copies of exhibits attached to Form 10-K also will be made available at a charge. Requests should be made in writing to:

Public Affairs Division
American Cyanamid Company
One Cyanamid Plaza
Wayne, New Jersey 07470

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