

In the Matter of

**CERTAIN APPARATUS FOR
THE CONTINUOUS PRODUCTION
OF COPPER ROD**

Investigation No. 337-TA-52

USITC PUBLICATION 1017

NOVEMBER 1979

UNITED STATES INTERNATIONAL TRADE COMMISSION

COMMISSIONERS

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Washington, D.C. 20436

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Washington, D.C. 20436

In the Matter of
Certain Apparatus for the
Continuous Production of Copper Rod

Investigation No. 337-TA-52

COMMISSION DETERMINATION AND ORDER

Introduction

The United States International Trade Commission conducted investigation No. 337-TA-52 pursuant to section 337 of the Tariff Act of 1930 (19 U.S.C. 1337) on the importation and sale of certain apparatus for continuous production of copper rod. The Commission determined that there are violations of the statute by Fried. Krupp GmbH and Krupp International, Inc., with regard to United States Letters Patent No. 3,317,994, Trade Secret No. 5, concerning the rod coiling apparatus, and Trade Secret No. 11, concerning certain features of the in-line cooling and cleaning pipe. The Commission determined that there is no violation of section 337 by Western Electric Company, American Telephone and Telegraph Company, and Nassau Recycle Corporation.

Determination

Having reviewed the evidentiary record in this matter, the Commission has determined:

1. That there are unfair methods of competition and unfair acts in the importation or sale of articles for the continuous production of copper rod with respect to (1) infringement of United Letters Patent No. 3,317,994 by Fried. Krupp GmbH and Krupp International, Inc., (2) misappropriation of Trade Secret No. 5, concerning the rod coiling apparatus, by Fried. Krupp GmbH and Krupp International, Inc., and (3) misappropriation of Trade Secret No. 11, concerning certain features of the in-line cooling and cleaning pipe, by Fried. Krupp GmbH and Krupp International, Inc., and that the tendency of these unfair practices is to substantially injure an industry, efficiently and economically operated, in the United States;

2. That there is no violation of section 337 of the Tariff Act of 1930 by Western Electric Company, American Telephone and Telegraph Company and Nassau Recycle Corporation;

3. That the issuance of cease and desist orders pursuant to section 337(f), as set forth in the order below, is the appropriate means to remedy the respective patent and trade secret violations of section 337 which the Commission found to exist with respect to Fried. Krupp GmbH and Krupp International, Inc.;

4. That, after considering the effect of these cease and desist orders upon the public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, and United States consumers, these cease and desist orders should be imposed; and

5. That the bond provided for in subsection 337(g)(3) of the Tariff Act of 1930 (19 U.S.C. 1337(g)(3)) shall be in the amount of 25 per cent ad valorem (ad valorem to be determined in accordance with section 402 of the Tariff Act of 1930 (19 U.S.C. 1401(a)) of the imported articles.

Order

Accordingly, it is hereby ordered that:

1. Respondents Fried. Krupp GmbH and Krupp International, Inc., shall cease and desist from the importation into in the United States, or the sale to purchasers in the United States, of articles for the continuous production of copper rod which are suitable for use in infringing--and are, in fact, subsequently so used with resulting infringement of--the method claimed by United States Letters Patent No. 3,317,994. This order shall be effective with respect to articles entered, or withdrawn from warehouse, for consumption on or after the date of publication in the Federal Register and on or before May 9, 1984, the date the aforesaid patent expires, except under license from Southwire Company and except as provided hereinafter by paragraph 4;

2. Respondents Fried. Krupp GmbH and Krupp International, Inc., shall cease and desist (a) from the importation into the United States, or the sale to purchasers in the United States, of articles for the continuous production of copper rod which incorporate in whole or in part the subject matter of Trade Secret No. 5, concerning the rod coiling apparatus and (b) from disclosing any of the subject matter of Trade Secret No. 5 in connection with such importation or sale. This order shall be effective with respect to articles entered, or withdrawn from warehouse, for consumption during the

seven-year period beginning on the date this order is published in the Federal Register, except under license from Southwire Company and except as provided hereinafter by paragraph 4;

3. Respondents Fried. Krupp GmbH and Krupp International, Inc., shall cease and desist (a) from the importation into the United States, or the sale to purchasers in the United States, of articles for the continuous production of copper rod which articles incorporate in whole or in part the subject matter of Trade Secret No. 11, concerning certain aspects of the rod cooling and cleaning line, and (b) from disclosing any of the subject matter of Trade Secret No. 11 in connection with such importation or sale. This order shall be effective with respect to articles entered, or withdrawn from warehouse, for consumption during the five-year period beginning on the date this order is published in the Federal Register, except under license from Southwire Company and except as provided hereinafter by paragraph 4;

4. (a) Articles which are suitable for use in the practice of United States Letters Patent No. 3,317,994, (b) articles which incorporate in whole or in part the subject matter Trade Secret No. 5, concerning the rod coiling apparatus, and (c) articles which incorporate in whole or in part the subject matter Trade Secret No. 11, concerning certain features of the in-line cooling and cleaning pipe, are entitled to entry under bond in the amount of 25 percent ad valorem (ad valorem to be determined in accordance with section 402 of the Tariff Act of 1930 (19 U.S.C. 1401(a)) from the day after the day this order is received by the President pursuant to section 337(g) of the Tariff Act of 1930 until such time as the President notifies the Commission that he approves or disapproves this action, but, in any event, not later than sixty days after such day of receipt;

5. That, as an ancillary matter, paragraphs 1 and 3 of Order No. 70 of the Administrative Law Judge, dated January 19, 1979, relating to an alleged protective order violation in this proceeding, are hereby vacated;

6. That, in light of objections received from the parties, the matter proposed for admission into the record by counsel for Asarco, Inc., a non-party to this investigation, during the September 26, 1979, presentations before the Commission concerning relief, bonding, and the public interest (marked for identification as Exhibit OA-5), is not admitted into the record in this investigation.

7. That this determination and order and the public versions of the cease and desist orders as well as the confidential versions of the cease and desist orders concerning Trade Secret Nos. 5 and 11 will be served upon each party of record in this investigation. This determination and order and the public versions of the cease and desist orders will be published in the Federal Register and served upon the United States Department of Health, Education and Welfare, the United States Department of Justice, the Federal Trade Commission, and the Secretary of the Treasury; and

8. That the United States International Trade Commission may amend this order at any time.

By order of the Commission:



Kenneth R. Mason
Secretary

Issued: November 23, 1979

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United States International Trade Commission
Washington, D.C. 20436

In the Matter of)	
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Certain Apparatus for the)	Investigation No. 337-TA-52
Continuous Production of Copper Rod)	
)	

ORDER REQUIRING FRIED. KRUPP GMBH AND KRUPP INTERNATIONAL, INC., TO CEASE
AND DESIST IMPORTING OR SELLING ARTICLES FOR THE CONTINUOUS
PRODUCTION OF COPPER ROD WHICH ARTICLES ARE SUITABLE
FOR USE IN INFRINGING--AND ARE, IN FACT,
SUBSEQUENTLY SO USED WITH RESULTING
INFRINGEMENT OF--THE METHOD CLAIMED
BY UNITED STATES LETTERS PATENT NO. 3,317,994

I. Definitions

The terms in quotations below shall be defined as shown for purposes of interpreting this Order:

"Commission" refers to the United States International Trade Commission.

"Krupp" refers to Fried. Krupp GmbH and Krupp International, Inc.

"United States" refers to the fifty states, the District of Columbia, and Puerto Rico.

II. Conduct Prohibited

Krupp shall not import into the United States, or sell to purchasers in the United States, articles for the continuous production of copper rod which are suitable for use in infringing--and are, in fact, subsequently so used with resulting infringement of--the method claimed by United States Letters

Patent No. 3,317,994. This order shall be effective with respect to articles entered, or withdrawn from warehouse, for consumption on or after the date of publication in the Federal Register and on or before May 9, 1984, the date the aforesaid patent expires, except under license from Southwire Company and except under bond during the 60-day period of presidential review, as determined by the Commission pursuant to section 337(g) of the Tariff Act of 1930. Importation into the United States and sale to purchasers in the United States shall, for the purposes of this Order, be deemed to have ceased when such articles have been shipped into the United States, the article or articles have been set up in working order, and commercial production of copper rod has begun.

III. Reporting

Krupp shall report to the Commission: all sales, exports, and shipments of articles for the continuous production of copper rod to purchasers in the United States; all letters of intent, whether written, oral, or whatever form, to enter into contracts to sell, export or ship articles for the continuous production of copper rod to purchasers in the United States; all contracts, whether written, oral, or whatever form, to sell, export, or ship articles for the continuous production of copper rod to purchasers in the United States; and all delivery orders, bills of lading, and all other documents relating to the sale, export, or shipment of articles for the continuous production of copper rod to purchasers in the United States. The first such report under this paragraph shall be due 90 days after the publication of this Order in the Federal Register. Subsequent reports shall be due on November 30, 1980,

November 30, 1981, November 30, 1982, November 30, 1983, and a final report shall be due on May 9, 1984. Forms for such reports required by this paragraph will be timely provided by the Commission. Failure to report shall constitute a violation of this Order.

IV. Compliance and Inspection

Krupp shall furnish or otherwise make available to the Commission or its authorized representatives, upon written request by the Commission mailed to its principal office in the United States, all books, ledgers, accounts, correspondence, memoranda, financial reports, and other records and documents in its possession or control for the purposes of verifying any matter contained in the reports required under paragraph III of this Order.

V. Confidentiality

Information obtained by the means provided in paragraphs III and IV above will only be made available to the Commission or its authorized representatives, will be entitled to confidential treatment, and will not be divulged by any authorized representative of the Commission to any person other than another duly authorized representative of the Commission, except as may be required in the course of securing compliance with this Order, or as otherwise required by law. Disclosure hereunder will not be made by the Commission without ten days prior notice to Krupp by service of such notice on Krupp's principal office in the United States.

VI. Enforcement

Violation of this Order may result in (1) the revocation of this Order and the permanent exclusion of the articles concerned pursuant to section

337(d), (2) temporary exclusion of impending importations of the articles concerned pursuant to section 337(e) or (3) an action for civil penalties in accordance with the provisions of section 337(f) and such other action as the Commission may deem appropriate. In determining whether Krupp is in violation of this Order, the Commission may infer facts adverse to Krupp if it fails to provide adequate or timely information.


VII. Term

This Order expires, unless modified or revoked by the Commission, with respect to articles entered, or withdrawn from warehouse for consumption on or after May 10, 1984.

VIII. Scope of Order

No person not specifically named in this Order is subject to this Order.

By order of the Commission:


Kenneth R. Mason
Secretary

Issued: November 23, 1979

PUBLIC VERSION

United States International Trade Commission
Washington, D.C. 20436

In the Matter of)

Certain Apparatus for the)
Continuous Production of Copper Rod)
_____)

Investigation No. 337-TA-52

ORDER REQUIRING FRIED. KRUPP GMBH AND KRUPP INTERNATIONAL, INC.,
TO CEASE AND DESIST FROM IMPORTING OR SELLING ARTICLES FOR
THE CONTINUOUS PRODUCTION OF COPPER ROD WHICH
INCORPORATE TRADE SECRET NO. 5 AND TO CEASE
AND DESIST FROM DISCLOSING TRADE SECRET NO. 5
IN CONNECTION WITH SUCH IMPORTATION OR SALE

I. Definitions

The terms in quotations below shall be defined as shown for purposes of
interpreting this Order:

"Commission" refers to the United States International Trade Commission.

"Krupp" refers to Fried. Krupp GmbH. and Krupp International, Inc.

"United States" refers to the fifty states, the District of Columbia, and
Puerto Rico.

II. Trade Secret No. 5

Trade Secret No. 5 concerns the rod coiling apparatus and consists of
confidential business information.

III. Conduct Prohibited

Krupp shall not import into the United States, or sell to purchasers in the United States, articles for the continuous production of copper rod which incorporate in whole or in part the subject matter of Trade Secret No. 5, concerning the rod coiling apparatus. In addition, Krupp shall not disclose the subject matter of Trade Secret No. 5, concerning the rod coiling apparatus, to any person in connection with such an importation or sale. This order shall be effective with respect to articles entered, or withdrawn from warehouse, for consumption during the seven-year period beginning on the date this order is published in the Federal Register, except under license from Southwire Company and except under bond during the 60-day period of presidential review, as determined by the Commission pursuant to section 337(g) of the Tariff Act of 1930. Importation into the United States and sale to purchasers in the United States shall, for the purposes of this Order, be deemed to have ceased when such article or articles have been shipped into the United States, the article or articles have been set up in working order, and commercial production of copper rod has begun.

IV. Reporting

Krupp shall report to the Commission: all sales, exports, and shipments of articles for the continuous production of copper rod to purchasers in the United States; all letters of intent, whether written, oral, or whatever form, to enter into contracts to sell, export or ship articles for the continuous production of copper rod to purchasers in the United States; all contracts, whether written, oral, or whatever form, to sell, export, or ship articles for

) the continuous production of copper rod to purchasers in the United States; and all delivery orders, bills of lading, and all other documents relating to the sale, export, or shipment of articles for the continuous production of copper rod to purchasers in the United States. The first such report under this paragraph shall be due 90 days after the publication of this Order in the Federal Register. Subsequent reports shall be due on an annual basis on November 30, 1980, November 30, 1981, November 30, 1982, November 30, 1983, November 30, 1984, November 30, 1985, and a final report shall be due on November 30, 1986. Forms for such reports required by this paragraph will be timely provided by the Commission. Failure to report shall constitute a violation of this Order.

V. Compliance and Inspection

Krupp shall furnish or otherwise make available to the Commission or its authorized representatives, upon written request by the Commission mailed to its principal office in the United States, all books, ledgers, accounts, correspondence, memoranda, financial reports, and other records and documents in its possession or control for the purposes of verifying any matter contained in the reports required under paragraph IV of this Order.

VI. Confidentiality

) Information obtained by the means provided in paragraphs IV and V above will only be made available to the Commission or its authorized representatives, will be entitled to confidential treatment, and will not be divulged by any authorized representative of the Commission to any person other than another duly authorized representative of the Commission, except as

may be required in the course of securing compliance with this Order, or as otherwise required by law. Disclosure hereunder will not be made by the Commission without ten days prior notice to Krupp by service of such notice on Krupp's principal office in the United States.

VII. Enforcement

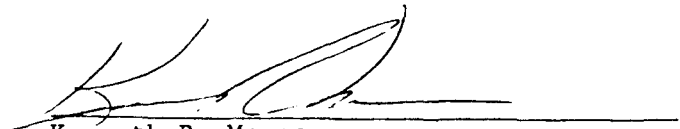
Violation of this Order may result in (1) the revocation of this Order and the permanent exclusion of the articles concerned pursuant to section 337(d), (2) temporary exclusion of impending importations of the articles concerned pursuant to section 337(e), or (3) an action for civil penalties in accordance with the provisions of section 337(f) and such other action as the Commission may deem appropriate. In determining whether Krupp is in violation of this Order, the Commission may infer facts adverse to Krupp if it fails to provide adequate or timely information.

VIII. Term

This Order expires, unless modified or revoked by the Commission, with respect to articles entered or withdrawn from warehouse, for consumption, seven years after the date this order is published in the Federal Register..

IX. Scope of Order

No person not specifically named in this Order is subject to this Order.
By order of the Commission.



Kenneth R. Mason
Secretary

Issued: November 23, 1979

PUBLIC VERSION

United States International Trade Commission
Washington, D.C. 20436

In the Matter of)

Certain Apparatus for the)
Continuous Production of Copper Rod)

) Investigation No. 337-TA-52
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ORDER REQUIRING FRIED. KRUPP GMBH. AND KRUPP INTERNATIONAL, INC.,
TO CEASE AND DESIST FROM IMPORTING OR SELLING ARTICLES FOR
THE CONTINUOUS PRODUCTION OF COPPER ROD WHICH
INCORPORATE TRADE SECRET NO. 11 AND TO CEASE
AND DESIST FROM DISCLOSING TRADE SECRET NO. 11
IN CONNECTION WITH SUCH IMPORTATION OR SALE

I. Definitions

The terms in quotations below shall be defined as shown for purposes of
interpreting this Order:

"Commission" refers to the United States International Trade Commission.

"Krupp" refers to Fried. Krupp GmbH. and Krupp International, Inc.

"United States" refers to the fifty states, the District of Columbia, and
Puerto Rico.

II. Trade Secret No. 11

Trade Secret No. 11 concerns certain features of the in-line cooling and
cleaning pipe and consists of confidential business information.

III. Conduct Prohibited

Krupp shall not import into the United States, or sell to purchasers in the United States, articles for the continuous production of copper rod which incorporate in whole or in part the subject matter of Trade Secret No. 11, concerning certain features of the in-line cooling and cleaning pipe. In addition, Krupp shall not disclose the subject matter of Trade Secret No. 11, concerning certain features of the in-line cooling and cleaning pipe, to any person in connection with such an importation or sale. This order shall be effective with respect to articles entered, or withdrawn from warehouse, for consumption during the five-year period beginning on the date this order is published in the Federal Register, except under license from Southwire Company and except under bond during the 60-day period of presidential review, as determined by the Commission pursuant to section 337(g) of the Tariff Act of 1930. Importation into the United States and sale to purchasers in the United States shall, for the purposes of this Order, be deemed to have ceased when such article or articles have been shipped into the United States, the article or articles have been set up in working order, and commercial production of copper rod has begun.

IV. Reporting

Krupp shall report to the Commission: all sales, exports, and shipments of articles for the continuous production of copper rod to purchasers in the United States; all letters of intent, whether written, oral, or whatever form, to enter into contracts to sell, export or ship articles for the continuous production of copper rod to purchasers in the United States; all contracts,

whether written, oral, or whatever form, to sell, export, or ship articles for the continuous production of copper rod to purchasers in the United States; and all delivery orders, bills of lading, and all other documents relating to the sale, export, or shipment of articles for the continuous production of copper rod to purchasers in the United States. The first such report under this paragraph shall be due 90 days after the publication of this Order in the Federal Register. Subsequent reports shall be due on November 30, 1980, November 30, 1981, November 30, 1982, November 30, 1983, and a final report shall be due on November 30, 1984. Forms for such reports required by this paragraph will be timely provided by the Commission. Failure to report shall constitute a violation of this Order.

V. Compliance and Inspection

Krupp shall furnish or otherwise make available to the Commission or its authorized representatives, upon written request by the Commission mailed to its principal office in the United States, all books, ledgers, accounts, correspondence, memoranda, financial reports, and other records and documents in its possession or control for the purposes of verifying any matter contained in the reports required under paragraph IV of this Order.

VI. Confidentiality

Information obtained by the means provided in paragraphs IV and V above will only be made available to the Commission or its authorized representatives, will be entitled to confidential treatment, and will not be divulged by any authorized representative of the Commission to any person other than another duly authorized representative of the Commission, except as

may be required in the course of securing compliance with this Order, or as otherwise required by law. Disclosure hereunder will not be made by the Commission without ten days prior notice to Krupp by service of such notice on Krupp's principal office in the United States.

VII. Enforcement

Violation of this Order may result in (1) the revocation of this Order and the permanent exclusion of the articles concerned pursuant to section 337(d), (2) the temporary exclusion of impending importations of the articles concerned pursuant to section 337(e), or (3) an action for civil penalties in accordance with the provisions of section 337(f) and such other action as the Commission may deem appropriate. In determining whether Krupp is in violation of this Order, the Commission may infer facts adverse to Krupp if it fails to provide adequate or timely information.


VIII. Term

This Order expires, unless modified or revoked by the Commission, with respect to articles entered or withdrawn from warehouse, for consumption, five years after the date this order is published in the Federal Register.

IX. Scope of Order

No person not specifically named in this Order is subject to this Order.

By order of the Commission.


Kenneth R. Mason
Secretary

Issued: November 23, 1979

COMMISSION MEMORANDUM OPINION

Procedural History

On April 11, 1978, Southwire Company, a Georgia corporation, of 126 Fertilla Street, Carrollton, Georgia 30117, filed a complaint with the United States International Trade Commission alleging violations of section 337 of the Tariff Act of 1930. The Commission, by notice published in the Federal Register on May 22, 1978, (43 F.R. 21951), instituted an investigation under section 337 to determine whether there is a violation of section 337(a) in the unauthorized importation of certain apparatus used for the continuous production of copper rod, or components thereof or replacement parts therefor, into the United States, or in their subsequent sale, by reason of alleged infringement of certain enumerated patents, including United States Letters Patent Nos. 3,317,994, 3,672,730, 3,716,423, and 3,623,532, and by reason of alleged misappropriation of certain trade secrets. Named as respondents in the Commission's investigation were American Telephone and Telegraph Company, Western Electric Company, Inc., and Nassau Recycle Corporation (hereinafter collectively referred to as the "Bell respondents"), and Fried. Krupp GmbH, and Krupp International, Inc. (hereinafter collectively referred to as the "Krupp respondents").

On June 15, 1978, Southwire moved to amend its complaint, alleging that the importation and sale of apparatus for the continuous production of copper rod, along with other imported apparatus and technology, comprised the elements of a combination and conspiracy to restrain trade and commerce in the United States. Complainant Southwire alleged that this was an additional

unfair act within the meaning of Section 337 (Motion Docket No. 52-11). On August 1, 1978, the Administrative Law Judge recommended that this motion be denied since Southwire had not shown good cause to amend its complaint and since an expanded investigation resulting from the proposed amendment to the complaint would prejudice the public interest and the rights of the parties to the investigation. The Commission, denying Motion Docket No. 52-11 on September 11, 1978, adopted the views and rationale of the Administrative Law Judge.

On July 28, 1978, complainant Southwire, pursuant to section 210.15 of the Commission's Rules of Practice and Procedure, moved to have the investigation designated as "more complicated". The Administrative Law Judge recommended on October 26, 1978, that the investigation be designated a more complicated investigation to afford the parties additional time for discovery and hearing. The Krupp respondents moved on November 2, 1978, to rescind the Administrative Law Judge's recommendation to declare the investigation more complicated (Motion Docket No. 52-67). On November 3, 1978, the Commission denied complainant's Motion Docket No 52-31 but ordered that the time limit for the hearing under section 210.41(e)(1) be extended for one month from December 22, 1978, to January 22, 1979. However, on November 17, 1978, the Commission granted Motion Docket No. 52-31, and accepted the recommendation of the Administrative Law Judge that the investigation should be designated more complicated. The Commission thereby determined that the criteria established by section 210.15 of the rules for more complicated investigations had been met due to (1) the complexity of subject matter, (2) difficulty in obtaining information, and (3) the presence of the large number of parties involved.

On November 3, 1978, Southwire filed Motion Docket No. 52-68 pursuant to Commission rule 210.20(d) to amend its complaint and the Commission's notice of investigation to include a charge of infringement of United States Letters Patent No. 4,129,170. On December 7, 1978, the Administrative Law Judge recommended that the Commission grant this motion and amend its notice of investigation accordingly. The '170 patent issued on December 12, 1978, and a copy was filed with the Commission on January 10, 1979. The Commission, by action of January 31, 1979, determined that complainant Southwire had shown good cause for the amendment of its complaint and that the amendment would not prejudice the interest of the public and the rights of the parties (section 210.20(d)). Accordingly, the Commission amended the complaint and its notice of investigation to add an allegation of violation of section 337 by the named respondents by reason of the infringement of the '170 patent.

On September 15, 1978, the Krupp respondents moved, pursuant to section 210.50 of the rules, for summary determination that there is no violation of section 337 with respect to the '532 patent (Motion Docket No. 52-37). On November 3, 1978, the Krupp respondents filed a second motion for summary determination and on November 28, 1978, they filed a supplement to their motion. The Krupp respondents requested that the investigation be terminated as to the '532 and the '366 patents (Motion Docket No. 52-69). On December 5, 1978, the Administrative Law Judge denied the Krupp respondents' second motion for summary determination, finding that there existed genuine issues of material fact which prevented a determination as a matter of law that the investigation should be terminated as to the '532 patent and the '366 patent.

On September 26, 1978, the Bell respondents filed a motion to terminate the investigation as to the Bell respondents with respect to the '994 patent, the '430 patent, and the '423 patent, alleging that they held royalty-free non-exclusive licenses for these patents (Motion Docket No. 52-41).

On November 16, 1978, the Administrative Law Judge filed a recommended determination concluding that the Bell respondents had non-exclusive royalty-free licenses under the '994 patent, the '430 patent, and the '423 patent, and that Bell had a right under such licenses to have the Krupp respondents make apparatus to practice the methods covered by the '994 and '430 patents for use at the Gaston, South Carolina facility of Nassau Recycle Corporation. The Administrative Law Judge also recommended that the Commission grant the Bell respondents' motion for summary determination as to the issues of infringement of the '994, '430, and '423 patents, and terminate the investigation as to the Bell and Krupp respondents with respect to the continuous casting and rolling system used by Nassau Recycle Corporation at Gaston, South Carolina, on any future parts to be used in the maintenance and operation thereof, for as long as the Gaston facilities are operated by the Bell respondents.

On March 29, 1979, the Commission voted to terminate this investigation with respect to that part of the investigation involving the alleged infringement of the '994 patent, the '430 patent, and the '423 patent by the Bell respondents. In addition, the Commission also voted to terminate that part of this investigation with respect to the alleged infringement of the '994 patent, the '430 patent, and the '423 patent, by virtue of the

manufacture and importation of the system for the continuous production of copper rod, located at Nassau's Gaston, South Carolina facility, by the Krupp respondents. This order included any future parts to be used in the maintenance and operation of the system relating to these three patents for so long as the Gaston facility is operated by the Bell respondents.

On February 16, 1979, the Krupp respondents moved for summary determination under section 210.50 of the Commission's rules that the '532 patent be held invalid and unenforceable, and that this investigation be terminated with respect thereto (Motion Docket No. 52-166). On February 16, 1979, the Krupp respondents moved for summary determination under section 210.50 that the '994 patent, the '430 patent, the '423 patent, the '337 patent, and the '170 patent be held invalid and unenforceable and that the investigation be terminated with respect thereto (Motion Docket No. 52-168). On February 28, 1979, the Administrative Law Judge denied these two motions for summary determination by the Krupp respondents (Order No. 129).

On March 6, 1979, all parties jointly moved for a 30-day extension of time in which to complete the hearing before the Administrative Law Judge (Motion Docket No. 52-205). On March 7, 1979, the Administrative Law Judge recommended that Motion Docket No. 52-205 be granted and that the deadline for submitting a recommended determination on the investigation to the Commission be extended to August 22, 1979. On March 23, 1979, the Commission ordered a 21-day extension of the completion date for the evidentiary hearing before the Administrative Law Judge pursuant to section 201.14(b) of the rules and extended the required filing date for the recommended determination to August 13, 1979, pursuant to section 210.53(a) of the rules.

On April 10, 1979, the Bell respondents moved to terminate the investigation with respect to alleged infringement of the '170 patent by the Bell and Krupp respondents (Motion Docket No. 52-250). On April 12, 1979, the Administrative Law Judge recommended that Bell's motion for summary determination concerning the '170 patent be granted and ordered that the motion be certified to the Commission. On June 20, 1979, the Commission voted to terminate that part of this investigation involving the alleged infringement of the '170 patent with respect to the Krupp-supplied system for continuous production of copper rod now located at Nassau's Gaston, South Carolina facility, as was previously decided as to '994, '423, and '430 patents. The Commission included any future parts to be used in the maintenance and operation of the system which relates to the '170 patent, for so long as the Gaston facility is operated by the Bell respondents.

An evidentiary hearing before the Administrative Law Judge began on March 28, 1979, and concluded on June 12, 1979. On August 13, 1979, the Administrative Law Judge recommended that the Commission find that there is a violation of section 337 in the unauthorized importation of certain apparatus used for the continuous production of copper rod, or components thereof or replacement parts therefor, into the United States, or in their subsequent sale. The Administrative Law Judge recommended that the Commission find (1) that the Krupp respondents have violated section 337 with respect to misappropriation of Trade Secret No. 5, concerning the rod coiling apparatus, and Trade Secret No. 11, concerning certain aspects of the in-line cooling and cleaning pipe and (2) that the Bell respondents have not violated section 337 and should be dismissed as respondents.

The Commission, by notice of August 17, 1979, announced that it would hold a hearing to begin on September 25, 1979, for two purposes. First, the Commission would hear oral arguments concerning the Administrative Law Judge's recommended determination of August 13, 1979. Second, the Commission would hear presentations concerning appropriate relief, bonding, and the public interest in the event that the Commission determines that there is a violation of section 337. These oral arguments and presentations concerning relief, bonding, and the public interest, were held before the full Commission on September 25 and September 26, 1979.

The '994 Patent

The '994 patent was issued on May 9, 1967, based on Application No. 390,666 filed on August 19, 1964. Named as inventors were Daniel B. Cofer, George C. Ward, and Dale D. Proctor; the '994 patent was assigned to complainant Southwire. The '994 patent covers a method of conditioning copper for hot forming, for example, by hot rolling in a rolling mill. The invention embodies a compression of the metal to the extent necessary to substantially completely destroy the columnar dendritic structure of the copper metal, as an initial step in, or prior to, conventional hot forming. The method is disclosed in the '994 patent in terms of compressing a copper bar to reduce its cross-sectional area by at least 36 percent, and, using a roll stand between the casting machine and the rolling mill, providing the necessary compression. The method is described as advantageous since it results in resistance to cracking and splitting problems during the hot forming of copper rod. In the old conventional wire bar process, such resistance to cracking

and splitting was achieved by homogenizing the metal prior to hot forming (Complainant's Direct Exhibit ("CDX") 1, CDX-6, CDX-11).

1. Validity.

The Administrative Law Judge held that the '994 patent is invalid since (1) part of the invention, namely, the elimination of the cracking problem in copper rod through taking an initial severe reduction of at least 36 percent at the first roll pass, was described in a printed publication in a foreign country before the invention thereof by Messrs. Cofer, Ward and Proctor, and, therefore, was anticipated under 35 U.S.C. 102(a), and (2) the remainder of the invention, namely, destruction of columnar dendritic structure in the continuous casting and rolling of copper was held by the Court of Customs and Patent Appeals in In Re Cofer, et al. (Patent Appeal No. 76-664, April 14, 1977) to be obvious to one of ordinary skill in the art under 35 U.S.C. 103. In that decision, the CCPA held that a 1957 publication, The Making, Shaping and Treating of Steel, combined with the teachings of the Properzi '433 patent rendered obvious to one of ordinary skill in the art the concept that dendritic structure of copper should be destroyed in continuous casting and rolling systems. The Administrative Law Judge held that prior art not before the Patent Office suggesting a severe first roll pass reduction to substantially completely destroy columnar dendritic structure included a June 1961 article by Dr. O. Nielsen published in Draht-Welt (Vol. 47, No. 6), a book by Butts entitled Copper (Krupp Ex. 2744), the British patent to Sundwiger, the publication entitled "OFHC Brand Copper" (Krupp Ex. 2747), the Rolle article (Krupp Ex. 2740), and German patent No. 919,042 to Junghans

(Krupp Ex. 2695). All of these prior art references teach substantial first roll pass reductions to condition metal prior to hot-forming.

We cannot agree with the Administrative Law Judge's determination of invalidity of the '994 patent based on the above approach and cited prior art references for several reasons.

First, the publication relied upon by the Administrative Law Judge to support an invalidity finding under 35 U.S.C. 102(a) (the Draht-Welt article) does not anticipate complainant's invention within the meaning of 35 U.S.C. 102(a). Anticipation has a very precise meaning under the patent laws and to find a patent invalid or reject a claim thereof all the material claimed features must be contained in a single prior art reference. The Draht-Welt article does not contain all the material claimed features of the '994 patent. These material features are (1) the passing of non-homogenized continuously cast copper, (2) in its as-cast condition, (3) at a hot forming temperature, (4) from a casting to hot forming means, (5) conditioning the copper by substantially completely destroying the dendritic structure, (6) by a single compression, and (7) hot forming the copper by a plurality of sequential compressions. An examination of the Draht-Welt article reveals that it does not teach material features (1), (2), (4), (5) or (6).

Second, the Administrative Law Judge improperly found the '994 patent invalid under 35 U.S.C. 103 for obviousness by not considering complainant's invention as a whole. Rather, in applying 35 U.S.C. 103, the Administrative Law Judge examined only an element of the invention, namely, the claim that the dendritic structure of copper should be destroyed in the continuous

casting and rolling of copper. While it is true that the CCPA held that such element is obvious in light the Properzi '433 patent and the publication, The Making, Shaping and Treating of Steel, the complainant's invention, which combined this element with a severe initial reduction of at least 36 percent at the first roll stand, was neither held to be obvious by the CCPA in In Re Cofer nor by the Administrative Law Judge in her recommended determination in this case.

Third, with respect to the various prior references cited by the Administrative Law Judge and by respondents as not before the Patent Office and as suggesting a severe first roll pass reduction to substantially destroy the columnar dendritic structure of copper, we note that there are significant metallurgical differences in producing copper rod by the old wire bar process and by the newer continuous casting process (recommended determination, pages 6-7; Tr. 2008-2011, 2032-2037, 4594-4597, 2020-2022). All of the prior art references cited by the Administrative Law Judge and by respondents against the '994 patent concern the old wire bar art. To be sure, these prior art references teach severe first roll pass reductions; however, they are not addressed to all of the problems which confronted Messrs. Cofer, Ward, and Proctor with respect to the continuous casting and rolling of copper.

Fourth, the Administrative Law Judge conceptually divided the '994 invention in two parts: (1) the destruction of the columnar dendritic structure of copper in continuous casting and rolling and (2) the elimination of the cracking problem in copper rod through taking an initial severe reduction of at least 36 percent at the first roll stand. As to the former

part of the invention, the Administrative Law Judge held the '994 invention to be obvious under 35 U.S.C. 103, whereas as to the latter portion of the invention the Administrative Law Judge held the invention as anticipated under 35 U.S.C. 102(a). We do not believe that such an approach is warranted under the patent laws. Even assuming, arguendo, that one or another of these elements is obvious or anticipated, there is nothing in the record to support the assertion that the combination of these elements, which comprises the novelty of complainant's invention, was either obvious or anticipated. (In Re Antonie, 195 USPQ 6, 8 (CCPA 1977); In Re Langer and Haynes, 175 USPQ 169, 171 (CCPA 1972)).

Fifth, the Administrative Law Judge failed to make any findings of fact as to what level of ordinary skill in the art would have been required by 35 U.S.C. 103 to determine whether the claimed invention would have been obvious to a person having such a level of skill who was working on the conceptual problems of the continuous casting and rolling of copper in 1963. Accordingly, the Administrative Law Judge could not have properly applied the 3-pronged test of Graham v. John Deere (381 U.S. 1 (1961)) in determining the obviousness of the '994 invention under 35 U.S.C. 103. While the Administrative Law Judge did (1) assess the scope and content of the prior art, and (2) the differences between the prior art and the claimed invention, the Administrative Law Judge did not (3) determine the level of ordinary skill in the pertinent art. However, the Administrative Law Judge does state that the concept of the '994 invention was not obvious to those skilled in the art in the United States in 1963 when the problem was being worked on during the

Southwire/Bell joint development project. Instead, as many as 16 different solutions were suggested by members of the joint development team including the concept of severe first roll pass reductions to alleviate the cracking problems in copper bar after the first roll pass. (recommended determination, page 32). Accordingly, the Administrative Law Judge seems to have implicitly determined that the level of ordinary skill in the art in 1963 can be determined by looking to the level of skill in the art possessed by the members of the Bell/Southwire joint development team, a determination with which we would agree. If this is indeed the case, the Administrative Law Judge's conclusion that the '994 invention was not obvious to those skilled in the art in 1963 militates against her finding that the the '994 invention is invalid as obvious under 35 U.S.C. 103, and, indeed, renders such finding anomalous.

Sixth, we do not feel that the Administrative Law Judge gave proper consideration to the substantial secondary considerations of non-obviousness in finding the '994 patent invalid. Secondary considerations such as commercial success, long felt but unresolved needs, failure of others, and so forth may be used to shed light upon the circumstances surrounding the origin of the subject matter patented (See, e.g., Graham v. John Deere Co., 148 USPQ at 467). In the instant case, involving very complex technical subject matter, such secondary considerations must, of necessity, be given considerable weight (Photoelectronics Corporation v. England, 581 F.2d 772 (9 Cir. 1978)). Indeed, all secondary indicia of non-obviousness mentioned by the Supreme Court in Graham v. John Deere are present in this case. The

inventions were made as a result of difficult development programs in the face of an apparent industry belief that "it couldn't be done," followed by wide spread praise and adoption of the new technology and gradual phasing out of the old conventional wire bar process. These changes were coupled with substantial commercial success arising out of the new invention due to the long-felt need for such a system in the industry and failures by others to achieve such a system prior to the '994 invention. These secondary considerations are further buttressed by the fact that almost every major company in the industry in the United States took licenses from complainant Southwire under the '994 patent, among others.

Seventh, 35 U.S.C. 282 provides that a patent shall be presumed valid and that the burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting it. In light of the above considerations, we do not believe that respondents shouldered their burden of overcoming the statutory presumption of validity of the '994 patent, particularly, with respect to the combination of the key elements, namely, (1) the destruction of columnar dendritic structure of cast copper prior to hot-forming, or (2) substantial reduction in continuously cast copper at the first roll stand. The combination of these key elements comprises the essence of complainant's invention which enabled the breakthrough in the continuous casting and rolling of copper rod which was long sought by the industry.

Accordingly, we determine that the '994 patent is valid and adopt the Administrative Law Judge's findings of fact and conclusions of law concerning the '994 patent, as modified by the Commission Investigative Attorney in his

exceptions and alternative findings of fact and conclusions of law, insofar as they are not inconsistent with the view expressed in this opinion.

2. Infringement.

The Administrative Law Judge ultimately concluded that, if valid, the Krupp system as used during the start-up operations at Asarco would have infringed the claims of the '994 patent. In addition, the Administrative Law Judge found that the type of Krupp system sold to Asarco could be used in the future in a manner which would infringe the claims of the '994 patent, if sold to another company in the United States. In discussing the infringement of the '994 patent it is necessary for us to examine (a) direct infringement, (b) contributory infringement, and (c) inducement to infringe the '994 patent by respondents (35 U.S.C. 271) as well as to (d) examine the question of future infringement through future importation and sales of Krupp Contirod systems to companies such as Phelps Dodge.

a. Direct infringement. The Administrative Law Judge found that there is no infringement of the '994 patent with respect to the Krupp system at Nassau/Gaston since the reductions at the first roll stand are only on the order of 31 or 32 percent. The Commission, by order of March 29, 1979, determined that the '994 patent is licensed to the Bell respondents. However, with respect to the question of direct infringement by the Krupp respondents, Krupp installed a Contirod continuous copper casting and rolling system at Asarco which used a greater than 36 percent reduction at the first roll pass at least during the start-up operations for the systems. In addition, the Asarco mill was designed by Krupp to use greater than 36 percent reductions at

) the first roll pass (Transcript ("Tr.") 3665-3666, 3020, 3156, 4657-4658). The sale of such a system by Krupp to Asarco employing a greater than 36 percent reduction at the first roll stand and designed by Krupp to do so, and the installation and use of such a system by Krupp engineers during the start-up operations at Asarco's Amarillo, Texas, facility, constitutes infringement by the Krupp respondents of the claims that the '994 patent.

The same analysis would also apply to the Krupp system sold to the Bell respondents for their Nassau/Gaston facility, if Bell were not licensed by Southwire. In this regard, while it is true that only reductions of 31 or 32 percent are employed at the first roll stand of the rolling mill at Nassau/Gaston, and, therefore, the 36 percent or greater reduction language of the '994 patent does not appear to be literally infringed, the record does not support a finding that the doctrine of file wrapper estoppel prevents the claims of the '994 patent from covering copper rod systems which take less than 36 percent reductions at the first roll pass. The significant limitation added during the prosecution of the claims of the '994 patent was that of substantially completely destroying the dendritic structure of copper in a single compression. (CDX 6). In addition, while Southwire was required during the prosecution of the '994 patent to restrict its scope to copper rather than to all metals (Finding of Fact ("FF") 54, 55, 58), no similar restriction was required with regard to the percent reduction necessary to destroy the dendritic structure of copper. Indeed, the specifications indicate that the percentage required is a value which will be readily apparent to those skilled in the art or can be determined empirically using

known metallurgical techniques (CDX-1, specifications, column 5, lines 11-16). Our examination of the applicable file wrapper reveals that the 36 percent reduction figure was part of original claims 14 and 15 and was not required by the patent examiner as a limitation in order for Southwire to obtain the '994 patent. Accordingly, it is appropriate to apply the doctrine of equivalents to copper rod systems which substantially completely destroy the dendritic structure of cast copper with reductions of less than 36 percent at the first roll stand. Accordingly, a Krupp sale, installation, and use during start-up operations of a Contirod system, if constructed as at Nassau/Gaston utilizing reductions of less than 36 percent at the first roll stand yet utilizing reductions sufficient to substantially completely destroy the columnar dendritic structure of cast copper, would constitute an infringement by equivalents of the claims of the '994 patent under 35 U.S.C. 271.

b. Contributory infringement. The Krupp respondents contributorily infringed the claims of the '994 patent by virtue of the sale to Asarco and the subsequent practice of the method disclosed by the '994 patent by Asarco during its start-up operations. In addition, future importation, sale and use of Krupp Contirod systems, if constructed and used as at Asarco or at Nassau/Gaston, would constitute contributory infringement by Krupp of the claims of the '994 patent.

35 U.S.C. 271(c) provides that whoever sells apparatus for use in practicing a patented process constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not to be a staple article or commodity of

commerce suitable for substantial non-infringing use, shall be liable as a contributory infringer. Since, as we have indicated above, the Krupp Asarco system infringed the claims of the '994 patent at least during start-up operations and, in the absence of a license to Bell, the Nassau/Gaston system would also infringe the '994 patent, it is appropriate to address the question of contributory infringement.

Four criteria must be met in order to prove contributory infringement. There must be (1) a sale, (2) of a material component of a patented invention, (3) with knowledge that the component was especially made for use in an infringement of such invention and (4) that the component was not a staple article of commerce capable of substantial non-infringing use. (35 U.S.C. 271(c); See, e.g., Reitch Manufacturing Company v. Barber Company, 302 U.S. 458 (1938)). In addition, the furnishing of apparatus with which to practice a method patent can be contributory infringement in certain instances (35 U.S.C. 271(c); See, e.g., Abington Textiles Machinery Works v. Carding Specialists, Ltd., 249 F.Supp. 823 (DCDC 1965)).

The criteria set forth above have been met in the instant case. There is no question that sales of Krupp Contirod systems to Asarco and Nassau/Gaston occurred. The reading of the claims of the '994 patent evidences the fact that the components supplied by Krupp to Asarco and Nassau/Gaston are material components for use in practicing the '994 invention. CDX-1, CDX-6, Tr. 2889-2890, 2946-2954, 2971, 2979-2997, 3003, 3015-3021, 3050-3076, 3155-3160, 3214-3281, 4542-4551, 4617-4169, 10,081-10,084, 8984-8987, 6977-6978, 4242-4248, 4250-4272, 8244, 9543-9547, CDX-177, CDX-179, 180, 187, 188, 189,

61; Tr. 4332-4350, 4396-4397, 4415-4416, 2959-2962, 2996-2997, 3015-3021, 3031-3050, 3153-3156, 3214-3281, 4650-4658, 4176-4180, 4190-4198, 8244, 8674-8680, CDX-178, CDX-45a, 45b, CDX-60, CDX-183, CDX-190-193). Further, the record reveals that the Krupp respondents considered Southwire patents including the '994 patent prior to their sales to Asarco and Nassau (CDX-382, 383, 385, 389, 392, 398 and translations). The Krupp respondents knew or should have known the way in which the continuous casting and rolling systems they supplied to Asarco and Nassau/Gaston would operate. Indeed, the record establishes that the Krupp respondents provided training to both Asarco and Nassau/Gaston on the operation of their respective continuous copper rod systems, imported and sold by Krupp to them, and assisted both Asarco and Nassau/Gaston in the start-up operations for the rod lines (Tr. 4229-4230). Therefore, Krupp clearly knew or should have known that these respective systems would be operated in a manner so as to infringe the claims of the '994 patent. In addition, in light of the amount of negotiation by Krupp with Asarco and Nassau and the size and complexity of the systems, it is apparent that the systems supplied were not staple articles of commerce capable of substantial non-infringing use. (Krupp sales activities: CDX-250; CDX-251; CDX-252; CDX-255; Tr. 4220-4224; CDX-254; Tr. 6508-6510; Tr. 6529; CDX-253). Accordingly, we find that Southwire has demonstrated contributory infringement by Krupp with respect to the Asarco sale.

c. Inducement to infringe. In order for the sale of apparatus to be employed in practicing the method of the '994 patent to be an unfair act of inducement to infringe it must be proven that Krupp had knowledge that what it

sold to Asarco and Gaston was designed to enable Asarco and Nassau/Gaston to infringe the '994 patent. In addition, it must also be shown that Krupp actively aided the infringement by Asarco or, in the absence of a license to Bell, the infringement at Nassau/Gaston, for example, by instructing them how to use the apparatus. (See, e.g., Westinghouse Electric and Manufacturing Company v. Precise Manufacturing Corporation, 11 F.2d 209 (2d Cir. 1926), Stamcarbon, N.V. v. McNally-Pittsburgh Manufacturing Corporation, 302 F.Supp. 525, (D. Kan. 1969), Mobil Oil Corporation v. W. R. Grace and Company, 367 F.Supp. 207 (D. Conn. 1973), Consolidated Rubber Tire Company v. B.F. Goodrich Company, 237 F. 838 (N.D.Ill. 1916), New Wrinkle Inc. v. Fritz, 30 F.Supp. 89 (W.D.N.Y. 1939)). Krupp's intent can be evidenced by the act of sale, marketing activities, knowledge of the patents involved, and knowledge that the apparatus would be used in an infringing manner. It is clear from the record that the Krupp respondents sold the systems to Asarco and Nassau/Gaston with prior knowledge of the '994 patent. (CDX-382, 383, 385, 389, 392, 398 and translations). In addition, there is no question that Krupp had knowledge that the apparatus would be used in a manner so as to infringe the '994 method patent, due to the fact that Krupp provided assistance to both Asarco and Nassau/Gaston in installing and making their systems operational during start-up operations, (Tr. 4229-4230).

d. Future imports. The question of future importations and sales of Krupp Contirod systems to companies such as Phelps Dodge is relevant to infringement of the '994 patent in light of the Administrative Law Judge's finding that the type of Krupp system sold to Asarco could be used in the

future to infringe the claims of the '994 patent, if sold to another company in the United States. In addition, applying the doctrine of equivalents, and, in the absence of a license of the '994 patent to Bell, the type of Krupp system sold to Nassau/Gaston could be used in the future to infringe the claims of the '994 patent, if sold to another company in the United States. In this regard, the record contains information which was introduced towards the close of the evidentiary hearing before the Administrative Law Judge concerning a binding letter of intent for a sale by Krupp of their Contirod system to Phelps Dodge for use at one of their domestic facilities, the Phelps Dodge facility at Bayway, New Jersey being mentioned as the site for installation of the Krupp system (See CDX-426 through CDX 430; Krupp Ex. 3023, 3024, Tr. 11514-11536, 11558-11575, 11578-11582). In light of the likelihood of imminent importation of a Krupp Contirod system to Phelps Dodge which, if used as Krupp Contirod systems at Asarco and Nassau/Gaston have been used, would infringe the claims of the '994 patent, we are requiring Krupp to furnish information in sufficient form and detail concerning any proposed exports to the United States of Krupp Contirod systems, or components thereof, or spare parts therefor, to companies such as Phelps Dodge. Such information will enable us to reopen the record in this proceeding, if necessary, to determine (1) whether any additional violations of section 337 exist, and (2) whether any additional relief is necessary to remedy the section 337 violations which have been found to exist on the basis of the existing record, such as the imposition of permanent or temporary exclusion orders or civil penalties.

3. Enforceability.

The Administrative Law Judge ultimately concluded that, if the '994 patent were valid and infringed, it would be enforceable. In reaching this conclusion, the Administrative Law Judge noted that the record does not establish that complainant or complainant's counsel engaged in any inequitable conduct or fraud on the Patent Office through misrepresenting or failing to disclose material facts in connection with the prosecution of the '994 patent. With reference to the contention of the Krupp respondents that complainant failed to disclose the Draht-Welt article to the Patent Office, that article was not known to Southwire at the time the application for the '994 patent was filed. In addition, the Administrative Law Judge found room for reasonable disagreement with the conclusion that the Draht-Welt article constitutes relevant prior art. Further, the Draht-Welt article is not concerned with destruction of columnar dendritic structure in connection with a continuous process for the production of copper rod. As such, it cannot be said to teach the invention of the '994 patent. However, the record is clear that the patent examiner was aware of the prior wire bar art. (Tr. 8518-8522).

Therefore, in light of the above considerations concerning the validity, infringement, and enforceability of the '994 patent, we adopt the Administrative Law Judge's findings of fact and conclusions of law with respect thereto, as modified by the exceptions and alternative findings of fact and conclusions of law filed by the Commission Investigative Attorney. In short, we are in full agreement with the Commission Investigative Attorney that there is a violation of section 337 with respect to the '994 patent.

Such a violation has been committed, and in light of the Krupp proposal to Phelps Dodge and the likelihood of imminent importations of Krupp Contirod components for Phelps Dodge, may be committed again in the future by the Krupp respondents. As we have indicated earlier, there is no violation of section 337 with respect to the Bell respondents' Nassau/Gaston facility in light of our determination of March 29, 1979, that the '994 patent is licensed to Bell.

The '170 Patent

The '170 patent is an apparatus patent which is the counterpart of the '994 method patent. The invention calls for a single compression to substantially completely destroy the columnar dendritic structure of cast copper and having an elliptical rolling channel to prevent cracking or splitting of the cast rod during hot forming.

1. Validity.

The Administrative Law Judge found the '170 patent, as the apparatus equivalent of the '994 method patent, as invalid for the same reasons discussed above with respect to the '994 patent. Briefly, the Administrative Law Judge argued that the same prior art references not cited to the Patent Office in connection with the prosecution of the '994 patent were not cited to the Patent Office in connection with the prosecution of the '170 patent. In addition, the Administrative Law Judge determined that the '170 patent is invalid under 35 U.S.C. 102(a) and 35 U.S.C. 103 for the same reasons as discussed above with respect to the '994 patent. The Commission Investigative Attorney disagreed with the Administrative Law Judge's conclusions concerning invalidity for the same reasons that he disagreed with the Administrative Law

Judge's conclusions concerning the invalidity of the '994 patent. Likewise, we disagree with the Administrative Law Judge's determination that the '170 patent is invalid for the same reasons, as discussed above, that we disagreed with her conclusion concerning the '994 patent, as discussed above.

2. Infringement.

The '170 patent cannot be infringed by the respondents in this investigation, either directly, contributorily, or by inducement, since the importations to Asarco and Nassau/Gaston occurred prior to the issuance of the '170 patent. Accordingly, with respect to the Krupp sales to Asarco and Nassau/Gaston, there was no patent to infringe. In addition, with respect to the Bell respondents, we have already determined by Commission determination order and opinion of June 20, 1979, that the '170 patent is licensed to the Bell respondents.

However, since the '170 patent is the apparatus equivalent of the '994 method patent, and, since, as we discussed earlier concerning the '994 patent, future importations and sales of Krupp Contirod systems to companies such as Phelps Dodge, appear to be likely and imminent based on the record (CDX-426 through CDX-430; Krupp Ex. 3023, 3024, Tr. 11514-11536, 11558-11574, 11578-11582), the question of future importations and sales of Krupp Contirod systems is relevant to infringement of the '170 patent.

The Administrative Law Judge found that, if a system similar to that sold to Asarco were sold by Krupp to another U.S. purchaser (such as Phelps Dodge), this would infringe claims 2, 7, 9, 11, and 12 of the '170 patent. If the same Krupp drawings were used, an intent to use a greater than 36 percent

reduction at the first roll pass could be shown; to prove an infringement of claims 1 and 6 of the '170 patent, only a single compression sufficiently serve to substantially completely destroy the columnar dendritic structure of the cast copper bar would have to be shown. Likewise, viewing the 36 percent reduction figure as not being critical to infringement of the '170 patent, and, in the absence of a license of the '170 patent to Bell, if a system similar to that sold to Nassau/Gaston were sold by Krupp to another U.S. purchaser (such as Phelps Dodge), the '170 patent would be infringed.

In light of the likelihood of imminent importation of a Krupp Contirod system to Phelps Dodge, which, if constructed as the Krupp Contirod systems at Asarco and Nassau/Gaston were constructed by Krupp, would infringe the claims of the '170 patent, we are requiring Krupp to furnish information in sufficient form and detail concerning any proposed exports of Krupp Contirod systems, or components thereof, or spare parts therefor, to companies such as Phelps Dodge. Such information will enable us, if necessary, to reopen the record in this proceeding to determine (1) whether any additional violations of section 337 exist, and (2) whether any additional relief, such as the imposition of permanent or temporary exclusion orders or civil penalties, is necessary to remedy the section 337 violations which have been found to exist on the basis of the existing record.

3. Inforceability.

The Administrative Law Judge ultimately concluded that the '170 patent is enforceable except for claim 10. The Commission Investigative Attorney's position was that the '170 patent is enforceable in its entirety. Southwire's

) counsel, in July of 1978, took depositions that contained confidential information relating to the proposed operation of the Bell respondents' Nassau/Gaston plant. After conducting such confidential discovery, the Bell respondents alleged that counsel for Southwire modified the claims of the then-pending application for the '170 patent, broadening claim 10 in two respects. First, words of limitation, "columnar dendritic structure," were changed to "as cast" structure since discovery at the Nassau/Gaston facility had shown that bar cast there might not have a columnar dendritic structure. Second, words of limitation in the claim concerning "substantially elliptical" rolling channels were eliminated since discovery at Nassau/Gaston had shown that such channels would be not be used at Nassau/Gaston. In addition, the Bell respondents alleged that claim 10 was revised to include at least a 36 percent reduction at the first roll pass since discovery had shown that the Nassau/Gaston mill was proposing to use a greater than 36 percent reduction. Complainant's counsel argued that all the information upon which modified claim 10 was based was available from sources other than the confidential discovery in this case taken at Bell's Gaston facility, namely, from public sources such as the Nonferrous Wire Handbook.

The Administrative Law Judge held that counsel for Southwire used confidential information obtained during discovery under the Commission's protective order in this proceeding to modify claim 10 of the application for the '170 patent, then pending in the Patent Office, in order to benefit his client Southwire. If this were established on the record as true, violation of the Commission's protective order would constitute an equitable defense

against enforcement of expanded claim 10 of the '170 patent, if not the entire '170 patent, as well as serve as a basis for possible suspension or disbarment of Complainant Southwire's attorney from practice before this Commission.

The Administrative Law Judge's conclusion that Southwire's counsel so used confidential information is based upon finding of fact number 155. However, this finding of fact contains no citation to the record to support the Administrative Law Judge's conclusions, nor, reviewing the evidence of record, are we persuaded that Southwire's counsel so used the information in question. In fact, the Administrative Law Judge's conclusions are anomalous in light of her prior Order No. 70 of January 17, 1979, in which she refrained from finding that a violation of the protective order had occurred. Counsel for Southwire filed a timely interlocutory appeal with the Commission with respect to the Administrative Law Judge's Order No. 70.

Since we are not persuaded that the record establishes that a violation of the protective order occurred, we find the '170 patent to be enforceable in its entirety, as argued by the Commission Investigative Attorney.

In addition, we are vacating paragraphs 1 and 3 of Order No. 70 since the Administrative Law Judge purported to prohibit counsel for complainant Southwire from practicing before the Patent Office with respect to copper rod related patents for a period of three years following the close of the record in this Commission's proceeding. We can find no authority for the issuance of such an order by this Commission. However, this does not imply that either the Administrative Law Judge or the Commission does not have other available sanctions should counsel be found to have violated the terms of a protective order.

In light of the considerations discussed above concerning the validity, infringement, and enforceability of the '170 patent, we adopt the findings of fact and conclusions of law of the Administrative Law Judge, as modified by the exceptions and alternative findings of fact and conclusions of law filed by the Commission Investigative Attorney. In conclusion, we determine that there is no violation of section 337 with respect to the '170 patent.

The '430 Patent

The '430 patent is a method patent for producing a hot-formed copper based product by continuously casting molten copper-based metal with dendritic structure and hot forming the metal to substantially destroy columnar dendritic structure when the cast metal solidifies.

1. Validity.

The Administrative Law Judge determined that the subject matter of the '430 patent is obvious to a person having ordinary skill in the art and is therefore invalid under 35 U.S.C. 103. Uniformly dispersed copper oxide inclusions are inherent in continuously cast copper rod and were an expected result to those of ordinary skill in the wire bar art in early 1960's. The '430 patent is not entitled to the early August 19, 1964, filing date since the application filed for the '994 patent did not mention the concept of uniformly dispersed copper oxide inclusions as does the '430 patent. Accordingly, the '994 patent was not based on the same subject matter as the claims of the '430 patent. As a matter of patent law, to obtain the benefit of an earlier filing date, the earlier application must contain every feature that is claimed in the subsequent application. Since the '430 patent is not

entitled the August 19, 1964, filing date of the '994 patent, significant prior art and statutory bars are available against the '430 patent as follows.

First, Southwire's selling and licensing of copper rod apparatus and processes more than one year prior to the effective filing date of the '430 patent renders it invalid under 35 U.S.C. 102(b). Second, Southwire has certain foreign patents concerning uniform copper oxide inclusions which render the '430 patent invalid under 35 U.S.C. 102(d). Third, obtaining copper rod having uniformly dispersed copper oxide inclusions would have been obvious to one ordinary skill in the art in the early 1960's in light of the Properzi '433 patent. Accordingly, the '430 patent is invalid as obvious under 35 U.S.C. 103. Fourth, Bell employees who were joint inventors of the '430 patent were omitted from the patent application. Since this does not appear to have been a mere error, and, therefore, is not correctable under 35 U.S.C. 256, the '430 is invalid under 35 U.S.C. 102(f).

2. Infringement.

As a point of departure, we have already determined that the '430 patent is licensed to the Bell respondents. As such, the Bell respondents do not infringe the '430 patent. With respect to the Krupp respondents, if the '430 patent were valid, the claims of the '430 patent would be infringed. Claims 2 and 11 of the '430 patent, which require substantially complete solidification in the closed mold prior to hot rolling, would be infringed by the Hazelett caster of the Nassau/Gaston system and the Hazelett caster of the Asarco system since there is substantially complete solidification in the closed mold. Claim 3 of the '430 patent, which requires metal be solidified in a

temporarily closed mold would not be infringed by Asarco or Nassau/Gaston since it is not completely solidified in the respective Hazelett casters.

Even if infringements based upon the Hazelett caster could be proven in this investigation, there is no basis for a finding of an unfair act within the purview of section 337 since the Hazelett caster is manufactured by a domestic corporation, namely the Hazelett Strip Casting Corporation of Colchester, Vermont. With respect to claim 6 of the '430 patent, which requires the temperature be varied within a certain range to obtain a particular temperature of cast metal, Asarco and Nassau/Gaston would infringe since a pendulum shear cuts off sections of the cast bar until a particular temperature for hot rolling is reached.

3. Enforceability.

If the '430 patent were valid and infringed, it would not be enforceable in light of Southwire's failure to include employees of Western Electric as joint inventors. As the Administrative Law Judge found, even if the non-joinder of inventors could be corrected, the patent is unenforceable until the correction is made.

For these reasons, we adopt the Administrative Law Judge's findings of fact and conclusions of law with respect to the '430 patent. However, insofar as a portion of the Administrative Law Judge's findings of fact and conclusions of law concerning the '430 patent imply that an unfair act could be found under section 337 on the basis of the Hazelett caster, a domestically produced item, provided that the '430 patent were otherwise valid and enforceable, we do not adopt such portions of the Administrative Law Judge's

findings and conclusions. In sum, we determine that there is no violation of section 337 with respect to the '430 patent.

The '423 Patent

The '423 patent is a patent on the product produced by the method described in the '430 patent. The product produced by the '423 patent is a rod of tough pitch copper having uniformly dispersed copper oxide inclusions.

1. Validity.

The '423 patent contains one claim covering the product produced in accordance with the method disclosed by the '430 patent, namely, a copper-based product having uniform oxide inclusions. The Administrative Law Judge found this patent to be invalid for the same reasons, as discussed above, that the '430 patent is invalid. The Commission Investigative Attorney concurred with this position. We also agree.

2. Infringement.

As a point of departure, by order of March 29, 1979, we determined that the '423 patent is licensed to the Bell respondents. As such, the Bell respondents do not infringe the '423 patent. With respect to the Krupp respondents, if the '423 patent were valid, the '423 patent would be infringed, contributorily infringed, or inducement to infringe would exist for the same basic reasons as for the '430 patent. However, insofar as such infringement would concern the Hazelett caster, a domestically produced article, we do not hold that any infringement based upon the Hazelett caster could constitute an unfair act within the purview of section 337.

3. Enforceability.

The Administrative Law Judge found that the '423 patent, if valid and infringed, would not be enforceable because of the failure of Southwire to include Western Electric employees as joint inventors. As with the '430 patent, even if non-joinder of inventors can be corrected, the patent is unenforceable until the correction is made.

For these reasons, we adopt the findings of fact and conclusions of law of the Administrative Law Judge with respect to the '423 patent and determine that there is no violation of section 337 with respect to the '423 patent.

The '532 Patent

The '532 patent concerns a method patent for continuously quench-pickling copper rod through impinging an acid pickling solution on the rod at high velocity and flowing the pickling solution into contact with the rod in the direction opposite to the direction of rod travel through the cooling and cleaning portion of the continuous copper rod production system. The '532 patent was issued on November 30, 1971, resulting from application No. 808,676, filed March 20, 1969 (CDX-3). The file wrapper for the '532 patent is CDX-8.

1. Validity.

The Administrative Law Judge concluded, and we agree, that the '532 patent is invalid under 35 U.S.C. 102(b) since the invention was in public use or on sale in this country prior to March 20, 1968, or more than one year prior to the filing of the pertinent patent application. If such sale and use were for experimental purposes, the '532 patent would not be invalid.

However, Southwire sold two in-line pickling systems prior to March 20, 1968, on a fully commercial and operational basis. The first sale, to Inspiration Consolidated Copper Company, was made on the basis that "only construction details remain to be worked out." (FF236-FF245, Krupp Ex. 290, 281, 299, Tr. 2470-2472, 1679-1680, 7487-7489, 6822, 1697-1700, 1702-1703, Krupp Ex. 349, Krupp Ex. 799). As such, the '532 patent is invalid under 35 U.S.C. 102(b) as "on sale" in this country more than one year prior the filing of the '532 patent application.

In addition, Southwire also negotiated a sale of a copper rod system, including an in-line pickling system, to Capital Wire and Cable. On January 16, 1968, Southwire and Capital Wire and Cable entered into a contract and license. Mr. Rego, Capital's president, testified that he purchased the rod pickling system described in the contract with Southwire based upon his observation of an operational in-line pickling system at Southwire prior to the signing of the contract. At page 12 of the contract an in-line citric acid pickling and cooling system including a water rinse and wax application is described. There is no reference in the contract to the pickling system being other than commercially operational. Mr. Rego understood that he was purchasing a system which was fully operational and not a developmental or experimental system (FF246-FF248, Tr. 8027, 2475-2476, 2480-2485). Again, the '532 patent is invalid under 35 U.S.C 102(b) in light of the Capital sale.

Indeed, with respect to the sales to Inspiration and Capital, the invention of the '532 patent had been commercially used for sales demonstration purposes (the SCR-1 in-line pickling system), offered for sale,

and two sales had been made of the system before March 20, 1968. (FF249, 250, 259, 260, 261, 262). With regard to its sales to Inspiration and Capital prior to March 20, 1968, Southwire is estopped from arguing that its system was experimental since Southwire sold the systems for profit after representing that they were operational.

The Commission Investigative Attorney's argument that there was no invention until March of 1969 is not persuasive particularly in light of the sale to Capital. In light of Southwire's representations to Capital that the in-line pickling system being sold to them was fully operational, Southwire is estopped from claiming that no invention has been made and that its system was only experimental. Southwire sold the in-line pickling system to Capital for profit after representing that the system was operational (FF247, 268).

2. Infringement.

First, as a point of departure, it must be said that the '532 patent is licensed to the Bell respondents. Southwire and Western Electric have a patent license agreement effective September 1, 1963 (Bell Ex. 308). In accordance with this agreement, the Bell respondents licensed Southwire and Southwire licensed the Bell respondents under patents issuing at any time on inventions made prior to September 1, 1968. As the Administrative Law Judge found, the July 1968 report shows the final reduction to practice of the invention of the '532 patent. (FF281, CRX-13). The April of 1968 progress report on the invention showed that several on stream tests were made directed toward friction in the pipe and surface samples. Work was being done in the area of cobble prevention or reducing the drag or mill back pressure. The May

1968 report shows continuing work to reduce friction in the rod handling system. The June 1968 report shows continuing on stream research. However, by July of 1968 tube friction was reduced by means of rollers and a new tube liner and operating conditions had improved. (FF276-281, CRX-13). By September of 1968 rod production was at a record level; the pickling system was used regularly and cobbling was no longer frequent (FF283, CRX-13). Accordingly, inasmuch as the invention was made prior to September 1, 1968, it is therefore licensed to the Bell respondents.

Even if the '532 patent were not licensed to the Bell respondents, the Nassau/Gaston system cannot infringe the '532 patent because it employs a non-acid cleaning process using commercially available G. Whitfield Richards Company solution. This solution is an alcohol-based solution (Tr. 6882; Tr. 7907, 7914). Unlike an acid pickling solution, which is called for by the claims of the '532 patent as properly interpreted, which functions by dissolving copper oxides from the rod surface, an alcohol pickling solution instead relies upon the reduction of the copper oxides whereby the oxides in the copper oxide scale are chemically converted to oxygen leaving elemental copper on the rod surface (Bell Tr. 5603-5604, Weins Tr. 9341-9349, Klasky Tr. 7856-7857; Krupp Ex. 2967 at pages 107, 147). As the Administrative Law Judge found, acid and non-acid systems are not equivalent in operation. This is confirmed in some of Southwire's own non-acid patent applications; for instance, in the Cofer et al. applications it is stated "why would one skilled in the art seek to modify an acid system to a non-acid system since the chemistry of both systems is totally different from one another" (Krupp Ex.

2967 at page 107). As the Administrative Law Judge found, alcohol reduction of copper oxide on copper rod is not the equivalent to acid pickling for the following reasons:

1. In the '532 patent, concerning acid pickling, the rod is "impinged" with acid and is cooled as quickly as possible in the tube to permit the liquid contact with the surface of the rod which is necessary to dissolve the oxides. In contrast, the non-acid system utilizes alcohol based solutions since oxide is chemically reduced by the alcohol at a very high temperature. It is necessary with alcohol to maintain the rod at a high temperature for as long as possible in the cleaning and cooling tube.
2. In the '532 patent, it is necessary to wash away the acid after pickling whereas no washing is required with an alcohol reduction (Cofer et al. non-acid cleaning patent application No. 589,671). (Krupp Ex. 2967, page 158).
3. In the '532 patent, it is necessary to provide effective means such as an air wipe to separate pickling acid solution from mill emulsion (Barnes Tr. 10,677) whereas with alcohol cleaning an air wipe is unnecessary and is not used at Nassau/Gaston (Cofer et al. non-acid patent application; Krupp Ex. 2333, page 116; Krupp Ex. 2967, page 151, 158; Lawrence Tr. 6661, Gorton Tr. 4025-4026).
4. In the '532 patent, for continuous operation, it is necessary to remove the dissolved copper from the acid pickling solution. In contrast, since alcohol functions by chemical reduction of oxide rather than dissolving the copper oxide, it is unnecessary to provide for removal of copper from the alcohol solution.
5. In the '532 patent, because of the large amount of copper going into the acid solution, it is desirable to use a sequestering agent to keep the copper from separating out from solution in undesired places ('532 patent, CDX-3, column 9, lines 8-15). This problem does not exist with alcohol reduction since copper does not go into solution in any significant fashion (Krupp Ex. 2967, page 107).

In addition, whereas the '532 patent requires injectors in the cooling and cleaning tube to provide counterflow in relation to the direction of rod travel, the Gaston injectors are not so constructed. Indeed, the Gaston injectors, having a series of transversed openings, would not function in the

same way as the directional annular injectors or nozzles of the '532 patent. (Moss Tr. 6895-6898; Weins 10,001-10,009, 10,026-10,034). In addition, the testimony of Mr. Lawrence establishes that the pickling fluid at Nassau/Gaston travels "only in the direction of rod travel, rather than counter to the direction of rod travel as specified in the '532 patent (Tr. 6558-6559, 6655)." It should be noted, however, that complainant's experts were not permitted to look in any open drain boxes at the Gaston mill, although they had requested an opportunity to do so. (FF292).

With respect to whether or not the copper rod is "impinged" at Nassau/Gaston the Administrative Law Judge found that there is impingement. (FF297). Accordingly, if the '532 patent were valid, the Nassau/Gaston operation would have infringed claim 1 with respect to impingement.

The cleaning and cooling system at Asarco uses a non-acid cleaning process. Based upon information as to the cleaning and cooling system at the time it was first installed, the system at Asarco would not infringe the '532 patent, if valid, because a non-acid cleaning solution was used. However, there may have been some impingement and counterflow at Asarco within the meaning of the '532 patent (FF300, FF296-298). Accordingly, if the '532 patent were valid, the Asarco system as first installed by Krupp would have infringed claims 1 and 4 of the '532 patent. However, after the Krupp equipment was installed, Asarco changed the injectors and pointed them in the direction of rod travel (SX-JTD).

3. Enforceability.

We find the '532 patent to be enforceable in light of the finding that the '532 patent relates only to acid pickling systems. (recommended determination page 67). However, if the '532 patent is interpreted as applying to both non-acid and acid pickling systems, it would be unenforceable since prior art relating to non-acid cleaning systems was not brought to the attention of the patent examiner by Southwire. Southwire did not disclose to the patent examiner relevant prior art relating to non-acid cleaning and cooling systems (FF269). None of the prior art cited by the Patent and Trademark Office during prosecution of the '532 patent showed cooling or cleaning of continuously cast hot rod in a closed pipe but dealt only with open tank pickling systems (FF271). Prior art showing cooling or cleaning of continuously cast hot rod in a closed pipe was known to Southwire and to Mr. Cofer prior to the filing of '532 patent application, including Southwire's own U.S. Patent No. 3,357,835 issued to Cofer on June 28, 1966 (Krupp Ex. 2665), and Southwire's U.S. Patent No. 3,395,560 issued to Cofer on August 6, 1968, on an application filed June 15, 1964 (Krupp Ex. 2672, Bell Ex. 700). Southwire did not bring these patents to the attention of the Patent Office (FF273). The failure of Cofer or Johns or Southwire to disclose these patents to the Patent Office can only mean that acid and non-acid pickling systems were considered by them to be dissimilar (FF274). Accordingly, we must agree with the Administrative Law Judge in concluding that the '532 patent is only enforceable if construed as relating only to acid cleaning and not to non-acid cleaning (FF301). In addition, we agree with the Krupp respondent's position

that the '532 patent is not enforceable since complainant failed to inform the Patent Office of the existence of prior art known to the complainant which was more relevant than the prior art cited by the patent examiner, namely, the two Southwire patents cited above.

For the above reasons, we accept the findings of fact and conclusions of law of the Administrative Law Judge with respect to the '532 patent and determine that there is no violation of section 337 with respect thereto. */

Trade Secret Misappropriation

To prove misappropriation of a trade secret for purposes of establishing an unfair act within the purview of section 337, four elements must be proven: (1) the existence of a trade secret which is not in the public domain, (2) that the complainant is the owner of the trade secret or possesses a proprietary interest therein, (3) that the complainant disclosed the trade secret to respondent while in a confidential relationship or that the respondent wrongfully took the trade secret by unfair means, and (4) that the respondent has used or disclosed the trade secret causing injury to the complainant. These criteria are modeled on the Restatement of Torts criteria found in section 757. (See also Milgrim on Trade Secrets, section 7.07(1)). The fourteen trade secrets alleged to have been misappropriated are described in detail in FF302 (confidential).

Southwire alleges that 14 trade secrets were misappropriated by the Krupp respondents in connection with the importation and sale of certain apparatus for the continuous production of copper rod and that we should find unfair acts by the respondents with respect thereto. These 14 trade secrets can be */ Finding of Fact No. 270, however, contains an error of omission. We accept finding of fact No. 270 with the insertion of the word "not" following the word "if" on the first line of said finding.

divided into two classes. First, Southwire alleges that Trade Secret Nos. 1, 3, 4, 5, 7, 8, 9, 12, 13, and 14 were communicated in confidence by Southwire to Krupp during the Norddeutsche Affinerie project after Krupp and Southwire established a confidential business relationship through the signing a secrecy agreement on July 2, 1970. Southwire alleges that Krupp subsequently misappropriated these trade secrets. Second, Southwire alleges that Trade Secret Nos. 2, 6, 10, and 11 were misappropriated by Krupp through third parties by unfair means.

With respect to the first class of trade secrets, a word about the Norddeutsche Affinerie project is in order. In 1970, Fried. Krupp GmbH was engaged as a subcontractor to Morgan, a Southwire subcontractor, to manufacture and erect component parts of the continuous copper casting and rolling system sold by Southwire as primary contractor to Norddeutsche Affinerie (hereinafter N.A.) (FF303, CDX-102).

On July 2, 1970, Southwire, Morgan, Fried. Krupp GmbH, and N.A. signed a secrecy agreement which provided, in part, that Southwire, Morgan, N.A., and Krupp would keep confidential unique features of one another (CDX-98). The relevant articles of the secrecy agreement are described in detail in confidential FF305. The secrecy agreement does not allow Krupp to use the Southwire trade secrets learned by Krupp during the N.A. project and there is no time limit on this obligation. (FF308).

The existence of the secrecy agreement per se does not make it easier for Southwire to prove misappropriation of a trade secret in this investigation. Southwire is in the same position it would have been in under German law or

United States law without such an agreement since trade secret misappropriation in this proceeding is assessed in light of the confidential relationship between Krupp and Southwire (FF309). However, the existence of the secrecy agreement does establish that Krupp and Southwire were in a confidential relationship. (FF311).

With regard to the first class of trade secrets listed above (Nos. 1, 3, 4, 5, 7, 8, 9, 12, 13, and 14), the following trade secrets cannot qualify for protection under section 337 by virtue of disclosure or public knowledge thereof, as established on the record:

- (1) Trade Secret No. 1 (FF318-FF321, CDX-3, Krupp 2790);
- (2) Trade Secret No. 3 (FF338-FF347, Barnes Tr. 2541, 2542, 2544, Bell, Tr. 5407-5408, Heyl, Tr. 7722-7723, Bell Ex. 454, Krupp Ex. GRH, Cole Tr. 6186-6187, CDX-29, Krupp Ex. 2665, 2667, 2786, 2800);
- (3) Trade Secret No. 4 (FF370, Restatement of Torts, section 757, Comment B at 5-6 (1939));
- (4) Trade Secret No. 7 (FF447-462, Bell Ex. 229, Bell Tr. 5399-5401, Bell Ex. 231-1, Bell Tr. 5402, Cofer Tr. 1487-1488, Bell Tr. 5426-5427, Bell Ex. 524-31, Bell Ex. CK, Bell Tr. 5451-5452, Krupp Ex. 2707, Krupp JJW, page 21, Krupp Ex. 2665, Krupp Ex. 2667, Krupp Ex. 2806, Krupp Ex. 2790, Tr. 7556-7558, Bell Ex. 617, Tr. 5402, Cr. 8082, 8131, Tr. 8082, Krupp Ex. 2770, 2772, 2766, and 2791);
- (5) Trade Secret No. 8 (FF463-FF470, Bell Tr. 5426-5427, 5451-5452, Bell Ex. 5224-31, Bell Ex. CK, Bell Ex. 232-1, Cofer Tr. 1488, Barnes Tr. 2316, Tr. 7558, Krupp Ex. 1977, Tr. 8573-8574, Krupp Ex. 517, Tr. 7721-7722, Bell Ex. 454, Krupp TRH, Heyl written testimony, Tr. 5876-5677);
- (6) Trade Secret No. 12 (FF512-FF516, Cole Tr. 6183, 6482-6484, Bell Ex. AM, Bell Ex. 229-36, Moss Tr. 6890, Krupp Ex. 2806, 2790, and 2965, and Moss Tr. 6890);

- (7) Trade Secret No. 13 (FF517-FF525, Bell Tr. 5404, Bell Ex. 231-1, Bell Ex. 239, Bell Tr. 5398, 5402, CDX-29, Bell Tr. 5414, Cole Tr. 6187, Krupp GRH page 2, Bell Ex. 454, Krupp Ex. 2713, Krupp Ex. 2665, Krupp Ex. 2708, Tr. 2254-2255, 2265-2268, Tr. 5413, 7723); and
- (8) Trade secret No. 14 (FF526-536, Bell Tr. 5404-5406, Krupp Ex. 2806, Krupp Ex. 2790, Krupp Ex. 2713, Bell Tr. 5404-5405, Cole Tr. 6184-6185, Bell AM, Moss Tr. 6891-6893, Heyl, Krupp Ex. GRH, written direct testimony, Tr. 2327-2329, 2335-2337, Krupp Ex. 2790, and Krupp Ex. 2806).

With respect to the remaining two trade secrets in this first class of trade secrets, namely, Trade Secret Nos. 5 and 9, we can readily dispose of Trade secret No. 9 since Southwire does not possess the requisite proprietary interest in the subject matter thereof. (FF471-478, Barnes Tr. 2547, Heyl, written testimony, Tr. 7715-7719, Tr. 1254-1255, CDX-112-99-110-111).

The only remaining trade secret in the first class of trade secrets is Trade Secret No. 5. The Administrative Law Judge has determined that there is a violation of section 337 concerning misappropriation of Trade Secret No. 5 by Krupp during the N.A. project. We shall discuss Trade Secret No. 5 and the violation of section 337 which exists with respect thereto below.

Trade Secret No. 5

Trade Secret No. 5 is described by Southwire as follows:

As we alluded earlier, trade secret misappropriation as an unfair act within the meaning of section 337 requires that the following four elements be proven:

1. That a trade secret exists that is not in the public domain (See, e.g., Kewanee Oil Company v. Bicron Corp., 416 U.S. 470, 475 (1974));
2. That the complainant possesses ownership of the trade secret or a requisite proprietary interest therein;
3. That the complainant disclosed the trade secret to the respondent while in a confidential relationship or that the respondent wrongfully took the trade secret by unfair means; and
4. That the respondent has used or disclosed the trade secret causing injury to the complainant (See, e.g., TM Rabinowitz and Company v. Dasher, 82 NYS 2d 431, 435, 78 USPQ 163 (Sup. Ct. 1948; Restatement of Torts, Section 757 (ALI 1938); Milgrim, Trade Secrets, section 7.07(1)).

Southwire has proven each of these four elements with respect to Trade Secret No. 5 with respect to a violation of section 337 consisting of trade secret misappropriation by the Krupp respondents. To the extent that Trade Secret No. 5 was disclosed to the Bell respondents with respect to their Nassau/Gaston facility, Trade Secret No. 5 was received and used by the Bell respondents without any prior notice of Southwire proprietary rights in the trade secret (FF537-540). In addition, the features of Trade Secret No. 5 which were developed independently at Nassau's Staten Island plant could be used at Nassau/Gaston regardless of whether Krupp misappropriated Southwire

Trade Secret No. 5 and whether or not Nassau/Gaston had notice of Krupp's misappropriation prior to their purchase from Krupp. (FF439, Krupp Ex. 2787, Tr. 2562-2563, 6192-6196, FF537-FF544). Accordingly, there was no violation of section 337 with respect to Trade Secret No. 5 by the Bell respondents.

In examining the misappropriation of Trade Secret No. 5 by the Krupp respondents in more detail, we shall treat each of the four criteria listed above in turn.

First, the complainant must demonstrate the existence of a trade secret which is not in the public domain. Trade Secret No. 5 is a coiling method and apparatus which is comprises a combination of features, some of which appear in the public domain. Nevertheless, the record contains no evidence that all material features of the combination which comprises Trade Secret No. 5 have been published as a combination. It is an established principle (See, e.g., Smokenders, Inc. v. Smoke No More, Inc., 184 USPQ 309, 317 (S.D.Fla. 1974); Water Services, Inc. v. Tesco Chemicals, Inc., 410 F.2d 163 (5th Cir., 1969); Imperial Chemicals, Ltd. v. National Distillers and Chemical Corporation, 342 F.2d 737 (2d Cir. 1965)) that a trade secret can exist in a combination of characteristics and components, each of which, by itself, is in the public domain, provided, however, that the unique combination of these elements is not published and affords the complainant a competitive advantage. The coiling apparatus and method claimed by Southwire to comprise Trade Secret No. 5, under the principle of Water Services, is "the application of known techniques and the assembly of available components to create the first successful system in the industry . . ." (410 F.2d 163, 173).

The record establishes that complainant has protected and continues to protect the confidentiality of Trade Secret No. 5. To be sure, while Southwire does allow tours of its copper SCR systems and those of its licensees, these plant tours do not constitute disclosure of Trade Secret No. 5 since the guests in the respective plants are not able to view the process in sufficient detail to discern the claimed trade secret. (See, e.g., Sperry Rand Corporation v. Pentronix Inc., 166 USPQ 189, 198, paragraph 8 (E.D.Pa. 1970)). The respondents did not establish on the record that visitors to SCR systems could discern all the features which are claimed as Trade Secret No. 5.

We turn now to the second criterion to establish trade secret misappropriation as an unfair act within the meaning of section 337. Complainant must demonstrate that it is the owner of the trade secret or possesses the requisite proprietary interest therein. The record establishes that, although the coiling apparatus is generally manufactured by Morgan for use in Southwire SCR systems, the coiling apparatus was designed and developed jointly by Morgan and Southwire. In addition, since Southwire receives royalties for trade secrets which it has developed and which are incorporated into the SCR systems which it sells, Southwire has a definite proprietary interest in Trade Secret No. 5, (FF378, 379). Southwire uses Trade Secret No. 5 in the continuous production of copper rod, is in the business of selling SCR systems which incorporate the subject matter of Trade Secret No. 5, and has established a sufficient proprietary ownership interest to maintain an action for misappropriation of Trade Secret No. 5 as an unfair act within the meaning of section 337.

Turning to the third criterion to establish trade secret misappropriation as an unfair act under section 337, the complainant must prove that the trade secret was disclosed to the respondent while in a confidential relationship with complainant or that the respondent wrongfully took complainant's trade secret by unfair means. Southwire has established that they communicated Trade Secret No. 5 to Krupp, pursuant to a confidential relationship which existed between Krupp and Southwire. This communication occurred in the context of the confidential relationship entailed by the Norddeutsche Affinerie ("N.A.") project in West Germany. As we indicated earlier, in 1970, Southwire was the primary contractor for supplying a continuous copper rod casting and rolling system to N.A. and Morgan Construction Company was a subcontractor to Southwire. In turn, Fried. Krupp GmbH. was a subcontractor to Morgan for the manufacture and erection of certain apparatus components of the SCR system including the coiler which embodies Trade Secret No. 5. The relationship of a prime contractor, such as Southwire, to an independent subcontractor or joint venturer, such as Krupp, clearly serves as the basis of a confidential relationship (See, e.g., Crocan Corporation v. Sheller-Globe Corporation, 185 USPQ 211 (N.D.Ill. 1974); Materials Development Corporation v. Atlantic Metals, Inc., 172 USPQ 595 (Mass. 1971)). In addition, Southwire and Krupp signed a secrecy agreement for the purpose of protecting their respective trade secrets. The existence of this secrecy agreement evidences the fact that Krupp and Southwire were parties to a confidential relationship and establishes that both Southwire and Krupp were aware that obligations of confidentiality existed with respect to one another's proprietary

information. Following the signing of the secrecy agreement, Southwire notified Krupp that it considered the coiling method and apparatus to be a unique feature within the meaning of the secrecy agreement. During the course of the N.A. project, Southwire and Morgan gave Krupp engineers access to drawings of the coiler for Krupp's use in erecting the coiling apparatus. The record establishes that the Krupp respondents have admitted that the coiling apparatus and method described by Southwire as Trade Secret No. 5 were not known to the Krupp respondents prior to their association with Southwire, an association which afforded them access to Southwire/Morgan drawings of the coiler for the N.A. project. (FF401, CDX-358, CDX-359; Requests for Admission and Responses Nos. 183, 138.) In addition, it has been established on the record that the coiling apparatus which was supplied and designed by Krupp for both continuous and wire bar copper rod systems prior to their association with Southwire on the N.A. project did not possess certain material features of Trade Secret No. 5 nor did the earlier Krupp coilers contain the same combination of material features which comprises Southwire's Trade Secret No. 5.

Finally, we turn to the fourth criterion necessary to establish misappropriation of a trade secret as an unfair act within the meaning of section 337. Complainant must prove that the respondent used or disclosed a trade secret causing injury to the complainant. The record establishes that

Accordingly, in light of the above considerations, Southwire has established on the record that the criteria for misappropriation of a trade secret as an unfair act within the meaning of section 337 have been met with respect to the misappropriation and subsequent use or disclosure of all the features of Trade Secret No. 5 by the Krupp respondents. Accordingly, we determine that there is a violation of section 337 with respect to the misappropriation of Trade Secret No. 5 by the Krupp respondents and we adopt the findings of fact and conclusions of law of the Administrative Law Judge concerning Trade Secret No. 5 (FF371-439).

At this juncture, we shall return to the second class of trade secrets, mentioned above, consisting of those trade secrets misappropriated through a third party or by improper means. We can quickly dispose of Trade Secret No.

2 as not qualified for protection under section 337 since the subject matter thereof was disclosed or was a matter of public knowledge (FF322-FF337). In addition, with respect to Trade Secret No. 6, there is no evidence of record that Trade Secret No. 6 was ever misappropriated (FF440-FF446). With respect to Trade Secret No. 10, although there is some evidence of record that Mr. Jacob of Krupp had access to a confidential SCR newsletter containing the subject matter of this trade secret, the record does not demonstrate that Krupp disclosed this trade secret or that the subject matter of the trade secret was used by Krupp either at Asarco or Gaston. (FF479-FF488). As we indicated at the outset of this discussion, one of the elements necessary to prove trade secret misappropriation as an unfair act under section 337 is a use or disclosure of the subject matter of the trade secret to the harm of the complainant in a section 337 investigation. This does not appear on the record before us concerning Trade Secret No. 10.

Accordingly, the only trade secret remaining for serious consideration in the second class of trade secrets is Trade Secret No. 11. The Administrative Law Judge has found that there is a violation of section 337 by virtue of misappropriation of Trade Secret No. 11 by the Krupp respondents. We shall discuss the violation of section 337 which exists regarding Trade Secret No. 11 below.

Trade Secret No. 11

Complainant Southwire alleges that Trade Secret No. 11 was obtained indirectly by the Krupp respondents through a third party by improper means. Trade Secret No. 11 is described by complainant Southwire as follows:

Examining Trade Secret No. 11 in light of the four criteria requisite for a finding of trade secret misappropriation as an unfair act under section 337, the record establishes that the Contirod system originally sold by the Krupp respondents to Asarco does not utilize Trade Secret No. 11. However, the record establishes that the Contirod system supplied by Krupp to Nassau/Gaston does utilize Trade Secret No. 11. However, even though Trade Secret No. 11 is used at Nassau/Gaston, the Bell respondents are not liable for any misappropriation of Trade Secret No. 11 since there is no evidence of record that the Bell respondents either knew or had reason to know that the Krupp Contirod system purchased for use at their Gaston facility incorporated Southwire trade secrets (FF537-544). The owner of a trade secret has no claim against a user who acquired the information without knowledge that it was a trade secret (See, e.g., Ferroline v. General Aniline and Film Corporation, 207 F.2d 912, 920-921 (1953)). Accordingly, our determination that Trade Secret No. 11 was misappropriated is limited to the Krupp respondents.

Applying the four criteria, discussed above, which a complainant must satisfy to establish trade secret misappropriation as an unfair act within the

meaning of section 337, we shall treat each of these criteria in turn in relation to the misappropriation of Trade Secret No. 11 by the Krupp respondents.

First, complainant must prove the existence of a trade secret which is not in the public domain. Complainant has met this burden. Information concerning the _____ was disseminated by Southwire to its licensees in a confidential March 1974 SCR newsletter (CDX-96C). This newsletter is clearly marked on its cover page as being confidential. The record contains no evidence that the March 1974 SCR newsletter, or the detailed information contained therein concerning _____ was published by Southwire or was otherwise common or general knowledge in the public domain or in the industry. Although the cooling and cleaning pipe was observed members of a Wire Association tour at Inspiration Consolidated Copper Company, a Southwire licensee (Bell Tr. 5422), an observation of the length of various sections of the cooling and cleaning pipe does not disclose the function of the various lengths, even if inlets and drains are observable. The record establishes that the practice described as Southwire's Trade Secret No. 11 has been maintained as confidential information by Southwire. (FF492, 493, 495; Tr. 2222-2227, Tr. 2212-2214; CDX-96C).

Second, complainant must demonstrate a requisite proprietary interest in the trade secret. Southwire has satisfied this burden (CDX-96C).

Third, complainant must have disclosed the trade secret to respondent while in a confidential relationship, or complainant must demonstrate that

respondent wrongfully misappropriated the trade secret by unfair means. Likewise, complainant has satisfied this burden by demonstrating that

Fourth and finally, complainant must demonstrate that respondent has used or disclosed the subject matter of Trade Secret No. 11 causing injury to the complainant. Complainant has satisfied this burden by demonstrating that

Southwire was injured as a result of this misappropriation of Trade Secret No. 11 since it was incorporated in a Krupp system sold to Nassau/Gaston; the only other seller who was seriously considered by Nassau/Gaston for this sale was complainant Southwire.

Accordingly, in light of the above considerations, we conclude that Trade Secret No. 11 was misappropriated by Krupp and was incorporated into the design of the Nassau/Gaston system.

Finally, Southwire was injured as a result of the misappropriation of Trade Secret No. 11 since it was incorporated in the system sold to Nassau/Gaston and since Southwire lost the sale to Krupp. Therefore we determine that there is a violation of section 337 with respect to the misappropriation of Trade Secret No. 11 by the Krupp respondents and we adopt the findings of fact and conclusions of law of the Administrative Law Judge with respect thereto (FF489-FF511).

Injury to an Efficiently and Economically Operated Domestic Industry

1. Definition of the domestic industry.

The Administrative Law Judge found the domestic industry to consist of those divisions of the Southwire Co. devoted to the development, sale, servicing and licensing of SCR systems as well as the Southwire Machinery Division (SMD), Morgan Construction Co., and Machinery Assembly Corp. (MACORP), subcontractors who manufacture portions of the SCR systems for Southwire (FF545-557). The Commission Investigative Attorney agrees with the Administrative Law Judge's findings on this matter. We also agree with the Administrative Law Judge since we find the alternatives suggested by respondents to be without merit, as discussed below.

First, the Bell respondents take the position that there is no injury to a domestic industry because a domestic industry does not exist per se. They allege that they were unable to purchase a system for the continuous casting and rolling of fire-refined copper from Southwire for their Nassau/Gaston facility. However, the mere fact that the Southwire SCR system could only process cathode electrolytic grade copper does not preclude us from finding

that a domestic industry exists in this investigation. The issue of a system's use of fire-refined or cathode grade copper does not go to the question of the existence of a domestic industry which produces a system for the continuous production of copper rod. Whether a system which can only process cathode grade copper, such as the Krupp Asarco system, is equivalent to a system designed to process fire-refined copper, such as the Krupp system for Nassau/Gaston, is not an issue in light of the Administrative Law Judge's findings that, if valid, both the '994 and the '170 patents would be infringed by both the Asarco and Nassau/Gaston systems. In addition, the ability of the Nassau/Gaston facility to process fire-refined copper is more related to Nassau/Gaston's own expertise and to the availability to Nassau/Gaston of a large quantity of high grade copper scrap, on a continuing basis, in light of the Western Electric's substantial utilization of copper wire for the Bell system rather than to anything inherent in the Krupp Contirod system or the Southwire SCR system.

Second, the Krupp respondents take the position that several domestic industries exist. Krupp would have us define three domestic industries: 1) a domestic "continuous copper casting mill apparatus" industry; 2) a domestic "continuous cast copper rod production" industry; and 3) a domestic "spare parts for continuous casting mill apparatus" industry. Krupp cites several earlier Commission decisions for the proposition that the industry is to be defined narrowly in a section 337 investigation. However, none of the cases cited involved an apparatus patent.

In determining the scope of the industry in this case we have examined the realities of the marketplace. Complainant's SCR system competes directly with the Krupp Contirod system for sales of continuous copper rod production systems. The apparatus and method patents and the 14 trade secrets at issue are intimately related to the sale of the complete system. That is to say, both the Krupp and the Southwire systems are sold as a "package" comprising apparatus components, licensing of patent and trade secret know-how, engineering and start-up operations and other technical assistance, etc. In addition, elements supplied by Southwire's subcontractors, Morgan and MACORP, comprise an integral portion of this package. Accordingly, for us to segment the industry in this investigation, as Krupp would have us do, would ignore realities of the market for continuous copper rod production systems. For these reasons, we adopt the findings of the Administrative Law Judge with respect to the domestic industry in this investigation.

2. Efficiency and economy of operations.

The Administrative Law Judge found the domestic industry to be efficiently and economically operated (FF553-579). The Commission Investigative Attorney agrees with the Administrative Law Judge's findings on this issue. We also agree with the Administrative Law Judge since the arguments suggested by the Krupp respondents are defective, as discussed below.

The position of the Krupp respondents is that the domestic industry is not efficiently and economically operated. Krupp questions the quality of the product that complainant produces. Krupp also relies upon an alleged tying arrangement between Southwire and its subcontractor Morgan as evidence of

inefficiency of the domestic industry and on a dissenting Commissioner's opinion in a case decided in November of 1969, Furazolidone, for the proposition that efficient operation--

does not encompass patent misuse as a buttress to successful competition. A complainant whose domestic market position rests in part upon unlawful restrictive trade practices can in no way be deemed to be efficiently and economically operated.

The restrictive trade practices that Krupp alleges Southwire participated in involve a tying arrangement regarding the rolling mill supplied by Morgan as a component of Southwire's SCR systems, and prevention of Morgan from selling rolling mills to potential Southwire customers.

The Administrative Law Judge found that there was no tying arrangement

The Krupp position should be rejected for several reasons. The quality of the systems investigated does not seem to differ enough to conclude that the industry is not efficiently and economically operated. Although one system may be preferred by a particular customer, both systems have been sold throughout the world and there is no reason to believe that the domestic industry is not efficient. Also, with regard to the "unlawful restrictive trade practices" allegation, we believe that the Administrative Law Judge is correct in the conclusion that no tying arrangement contrary to the antitrust

laws exists.

No other unfair practice has been alleged or proven against Southwire. Accordingly, the equitable defense raised in Furazolidone, applied to the facts of this case, would fail. For the above reasons, therefore, we find that the domestic industry is efficiently and economically operated and adopt the findings of the Administrative Law Judge with respect thereto.

3. Injury to the domestic industry caused by respondents' unfair acts.

a. Effect or tendency to destroy or to substantially injure. In order to find injury, we must determine that the unfair methods or acts which exist had the "effect or tendency . . . to destroy or substantially injure an industry" (19 U.S.C. 1337). In the present case, Southwire, MACORP, and Morgan are not by any measure on the verge of destruction. Neither the Commission Investigative Attorney nor complainant argues that destruction is at the core of the injury question in this case. In addition, the Administrative Law Judge has not found any effect or tendency to destroy the domestic industry. Therefore, we will only discuss whether there is an effect or tendency to substantially injure the domestic industry.

The Administrative Law Judge found that the Krupp respondents' importation and sale of the Asarco system and Nassau/Gaston system resulted in losses of sales that would otherwise have gone to Southwire, and thus gave rise to an effect or tendency of substantial injury to the domestic industry. (See Ultimate Conclusion of Law No. 24.) The Administrative Law Judge made

specific findings of fact regarding injury to Southwire's divisions, and to Southwire's subcontractors, MACORP and Morgan (FF580-609). The complainant also believes that the effect of substantial injury has been demonstrated. The Commission Investigative Attorney, however, as well as the Administrative Law Judge, believes that a tendency to substantially injure has been proven.

The Bell respondents argue that any injury to the apparatus industry must be limited to the '170 patent because that is the only patent directed to the apparatus. The Bell respondents attempt to draw an analogy to domestic patent cases in which the Supreme Court has stated that a patent combination not be used to eliminate competition with regard to an unpatented element.

However, the patent aspects of the instant investigation are readily distinguishable from the domestic patent law cases cited by Bell. In the present case, the elements of the apparatus patent are not unpatented items as was true in the domestic cases cited by Bell. In addition, the '994 patent pertains to elements of the SCR system. Further, under section 337 the entity to be protected is the domestic industry, rather than the patent holder per se, as under domestic patent law cases. In addition, injury in this investigation also results from the misappropriation of Trade Secret Nos. 5 and 11 by Krupp. Although it may be less likely that the domestic industry would be injured in the present case if only one of the elements of one of the patents were infringed, there could be injury to a domestic industry in this case. The realities of the marketplace are that apparatus for the continuous production of copper rod is sold as a system or "package." Thus, patent

infringement of any element of a patent at issue that results in fewer sales of the entire system will result in injury to the industry.

The Bell respondents also argue that there was no injury to Southwire because Nassau would not necessarily have purchased the Southwire SCR system had it not bought the Krupp Contirod system. However, the evidence presented at the evidentiary hearing strongly suggests that the only alternative system to the Hazelett-Krupp Contirod system was the Southwire-Morgan SCR system.

With regard to the question of the effect to substantially injure, the necessary causation between the '170 apparatus patent and injury does not exist. This is true because the '170 patent was not issued, and, therefore, could not be infringed until December of 1978. Both the Nassau/Gaston and Asarco facilities were in operation well before that date.

The other patents and the trade secrets at issue in this investigation were in existence before the Nassau/Gaston or Asarco facilities were in operation. However, with respect to the Nassau/Gaston sale, complainant has produced little evidence to support its allegation that its lost sale to Krupp was caused by violations of its patents or trade secrets rather than by the inability of the SCR system, as opposed to Krupp's Contirod system, to produce copper rod using fire-refined copper in conformity with Bell's requirements. With respect to the lost sale of the Asarco system, the record indicates that

On

balance, therefore, given the paucity of information on the issue of causation of injury, we refrain from finding an actual "effect" to substantially injure on the basis of the record.

However, the Commission Investigative Attorney urges that we find a "tendency" to substantially injure the domestic industry. We agree that the evidence of record is more than sufficient to result in a determination that there is a tendency to substantially injure the domestic industry. This is true since the causal link which we must find for there to be a "tendency" to injure is less than the causation required to demonstrate an "effect." This difference was discussed by the Committee on Ways and Means of the House of Representatives in its report on the bill which became the Trade Act of 1974. With regard to injury findings in section 337 investigations, the report states:

As in the past, the Commission would make its determinations in cases involving the claims of a U.S. patent following the guidelines of Commission practices and the precedents of the CCPA. . . . Where unfair methods and acts have resulted in conceivable losses of sales, a tendency to substantially injure such industry has been established. (House Rpt. No. 93-571 (to accompany H.R. 10710), 93d Cong., 1st Sess (1973), at 78; Cf., In re Von Clemm, 229 F.2d 441 (CCPA 1955) (Emphasis added).

In Von Clemm, no actual loss of sales was shown to have occurred. Nevertheless, the CCPA held that there was sufficient causation shown to establish a "tendency" to injure. In the present investigation lost sales exist as a matter of record. There was much evidence developed during the

hearing before the Administrative Law Judge regarding the benefits of the '994 patent and the importance of Trade Secret Nos. 5 and 11. Respective infringement and misappropriation thereof, with resultant lost sales, is sufficient to establish a tendency to injure a domestic industry within the meaning of section 337.

In addition, with respect to a "tendency" to injure, the legislative history of section 337 and its predecessor, section 316 of the Tariff Act of 1922, also indicates that undesirable methods of competition were to be stopped in their incipiency. Support for the view that the Commission has been given powers to correct unfair acts in their incipiency is found in Senate Finance Committee report on the bill that became the Tariff Act of 1922. The report stated: 1/

The provision relating to unfair methods of competition in the importation of goods (section 316) is broad enough to prevent every type and form of unfair practice and is therefore a more adequate protection to American industry than any antidumping statute the country has ever had (Emphasis added). (See also, Commission Opinion in Certain Welded Stainless Steel Pipe and Tube, Inv. No. 337-TA-29 (Feb. 1978)).

Further, the Krupp respondents believe that any injury found in this case cannot be "substantial" within the meaning of section 337. However, given the low threshold of causation necessary to prove a tendency to substantially injure, as set out in Von Clemm and in the legislative history of the 1922 act, a tendency to substantially injure has been shown in this case. We believe that the injury that was caused by the importation of articles

1/ U.S. Senate, Committee on Finance, Report to Accompany H.R. 7456, S. Rept. No. 595, 67th Cong., 2d sess., at 3.

incorporating the '994 patent and the subject matter of Trade Secrets Nos. 5 and 11 is "substantial" within the meaning of section 337. The evidence presented demonstrates the amount of profits and employment that were lost by Southwire due to the importation of the two Krupp systems. The losses of these two sales coupled with the probability of imminent future sales to companies such as Phelps Dodge, represent a tendency to substantially injure.

In addition, Southwire has not made a sale of an SCR system in their home market (U.S.) for the past five years. Since the U.S. industry is phasing out the old wire bar process and is converting to continuous casting operations, the next few sales are critical to the health of the domestic industry. Since such systems are sold so rarely, it is too early to tell whether Southwire has actually lost the home (U.S.) market on the basis of only the Asarco and Nassau/Gaston sales. However, with the sale by Krupp to Phelps Dodge in the offing, coupled with past losses, a strong case for tendency to substantially injure exists.

Accordingly, we adopt the findings of fact and conclusions of law of the Administrative Law Judge with respect to a tendency to substantially injure the domestic industry.

b. Effect or tendency of preventing the establishment of an industry.

Both the Administrative Law Judge and the Commission Investigative Attorney agree that the evidence does not support a finding of injury on the basis of prevention of establishment. The prevention of establishment argument made by complainant in this case involves the SMD division of Southwire, which manufactures certain portions of Southwire SCR systems. Complainant argues

that the SMD division, as an independent profit center within Southwire, has had difficulty becoming established due to the Krupp violations. However, Krupp argues that any possible industry in this investigation is fully established and healthy.

It is our view, as stated above, that the industry here consists of several divisions of the Southwire company, including SMD, as well as Southwire's subcontractors, Morgan Construction Co. and MACORP. Given this concept of the domestic industry, we agree with the Administrative Law Judge and the Commission Investigative Attorney concerning this issue. The domestic industry in question is well established and viable and a finding of prevention of establishment would be inappropriate. Therefore, we adopt the findings and conclusions of the Administrative Law Judge on this issue.

Relief, Bonding, and the Public Interest

1. Appropriate Relief.

As is evident from our findings concerning violations of section 337, respondents are involved in several unfair practices--one being patent infringement and the others being misappropriation of two trade secrets. The appropriate remedies must be tailored to differences between these practices. It is our view that each of the three violations necessitates a separate cease and desist order, pursuant to section 337(f), directed to the specific unfair act. In addition, as an integral part of each cease and desist order, Krupp is being directed, pursuant to 19 U.S.C. 1333(a) to report promptly to us all exports of their Contirod system and its components to the United States. In light of the likelihood that a Krupp system, or components thereof, will be

exported to the United States for Phelps Dodge, and possibly for others, these reporting requirements will permit us to monitor imports and, if necessary, to reopen this proceeding to determine whether--(1) additional violations of section 337 exists, (2) additional relief, such as an exclusion order or civil penalties, if warranted, or (3) a new investigation and immediate imposition of a temporary exclusion order is warranted to exclude the imminent importation.

a. Remedy for patent violations. In order to prevent Krupp from infringing the '994 patent both Southwire and the Commission Investigative Attorney would have us impose an exclusion order on apparatus which is the subject of the '170 patent.

Although exclusion orders under section 337(e) have been used by the Commission in the past to remedy violations in patent-based section 337 investigations, the present case involves special considerations which make issuance of a cease and desist order the more appropriate remedy. The '994 patent is a method patent involving a compression of at least 36 percent at the first roll pass to substantially completely destroy the columnar dendritic structure of the cast copper prior to hot-forming. The '170 patent is the apparatus equivalent of the patented '994 process. As we have indicated above, the '994 patent is infringed by Krupp; however, due to the December 1978 issue date of the '170 patent and the fact that Krupp's importations preceded that date, we could not find infringement by Krupp with respect to the apparatus per se (the '170 patent). However, since it is conceivable that apparatus which is the subject of the '170 patent could be imported into this

country and used without infringing the method of the '994 patent, and since the present record does not support a finding of violation of section 337 by respondents with regard to the apparatus covered by the '170 patent, we believe that an exclusion order under section 337(d) directed to such apparatus would not be an appropriate remedy. The scope of the remedy would exceed the violation of section 337 found to exist. Accordingly, the public interest is best served by directing a remedy to the specific act of violation found to exist concerning the method patent by issuing a cease and desist order under section 337(f). Accordingly, we have issued a cease and desist order that prohibits the importation of certain apparatus for the continuous production of copper rod which is subsequently used in a manner so as to infringe the method claimed by the '994 patent.

In more detail, the cease and desist order that we have issued to remedy the '994 patent violation prohibits Krupp from exporting apparatus to the United States and setting up apparatus in the United States in a manner that would infringe the claims of the '994 patent. The record establishes that Krupp supplies engineering and other technical assistance in "start-up" operations for the Contirod systems which have been set up in the United States. Under the terms of this order, Krupp would have to set up any future systems in a noninfringing manner to our satisfaction.^{*/} Appropriate documentation of noninfringing use would be required. Violation of this order would make Krupp subject to the civil penalty provisions of section 337(f), as amended by section 1105 of the Trade Agreements Act of 1979, and could warrant ^{*/} Chairman Parker believes that the words "in compliance with the Commission's determination" should be substituted for the words "to our satisfaction."

the issuance of an exclusion order or temporary exclusion order to prevent future imports and ensure compliance by Krupp.

In order to be able to effectively enforce this order, it will be desirable for the U.S. Customs Service to inform us of every importation of Krupp apparatus. The Commission will then undertake monitoring and enforcement activities to ensure that the apparatus is not set up by Krupp and subsequently used during start-up operations in a manner which violates the '994 patent. If violation of the cease and desist order were found, Krupp would be subject to the section 337(f), "civil penalty for each day on which an importation of articles, or their sale occurs in violation of the order of not more than the greater of \$10,000 or the domestic value of the articles entered or sold on such day in violation of the order." As a consequence, we could bring a civil action in federal district court to enforce the cease and desist order. In addition, if Krupp violates the cease and desist order, there would be more than ample basis for imposing a temporary exclusion order directed at future importations of Krupp Contirod systems, or components thereof, pending the resolution of the matter through Krupp compliance.

b. Remedies for trade secret violations. The violations of section 337 respecting Trade Secret Nos. 5 and 11 are also appropriately remedied by respective cease and desist orders under section 337(f). A trade secret violation involves a personal relationship between the parties. Although a party before the Commission may be violating the trade secret, other persons may have a legitimate right to use that trade secret through, for instance, independent research and development of the subject matter thereof.

Accordingly, an exclusion order is an inappropriate remedy for trade secret violations under section 337 and a remedy should be directed at the person (Krupp) determined to have misappropriated it within the meaning of section 337. We agree with the Commission Investigative Attorney that the duration of the cease and desist order should be limited to the amount of time it would have taken Krupp to reproduce Southwire's trade secret by lawful means, i.e., a reasonable research and development period, namely, seven years for Trade Secret No. 5 and five years for Trade Secret No. 11 (See submission of the Commission Investigative Attorney concerning relief, bonding and the public interest, September 7, 1979, at pages 7 and 8).

c. Reporting requirements. As we have alluded earlier, our cease and desist orders with respect to patent and trade secret violations include requirements, pursuant to 19 U.S.C. 1333(a), that Krupp inform us of all sales and proposed exports of Krupp systems or components to the United States in order that we would be in a position to act quickly if an importation of a copper rod system in violation of section 337 were about to occur. In this respect, past imports by Krupp of Contirod systems did not violate the '170 patent since the '170 patent was not issued until after the importations occurred. However, this would not be true concerning future Krupp exports of Contirod systems to the United States for companies such as Phelps Dodge. In light of this fact and the fact that we already have developed an enormous amount of information in this investigation sufficient to justify a quick determination in the future that there is reason to believe section 337 is being violated, a temporary exclusion order vis-a-vis the future import could

be issued in a short period of time. This reporting requirement is necessary because we have before us evidence of record, including a binding letter of intent, that a sale by Krupp to Phelps-Dodge is imminent. Although the record does not fully indicate whether all aspects of the sale have been consummated or that such a system would infringe the '170 patent, there is a substantial likelihood that the Krupp system for Phelps Dodge would infringe the '170 patent. (FF605-607). It is therefore imperative that we closely follow this incipient unfair act in order that section 337 remedies be effectively administered.

2. Bonding.

During the period of Presidential review of the Commission's final order in this investigation, the articles which are the subject of that order are entitled to entry under a bond to be determined by the Commission, pursuant to section 337(g). As set forth in the legislative history of the Trade Act of 1974, the Commission, in determining the amount of the bond, "shall determine, to the extent possible, the amount which would offset any competitive advantage resulting from the unfair method of competition or unfair act enjoyed by persons benefitting from the importation." (See S. Rept. No. 93-1298, 93d Cong., 2d sess. (1974) at 198).

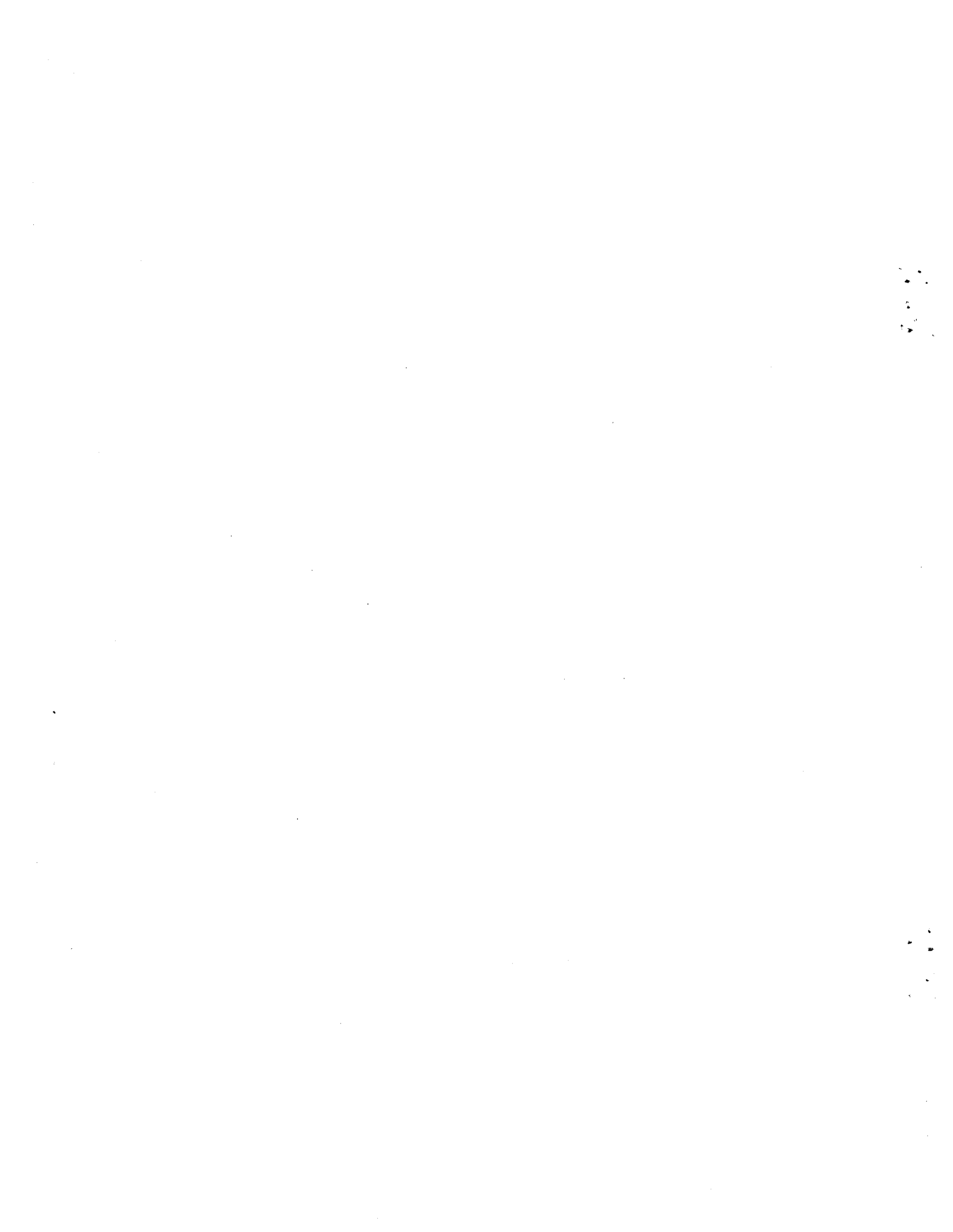
The "competitive advantage" heretofore enjoyed by Krupp in the U.S. market was the ability to sell systems for the continuous production of copper rod, which systems in part infringe the complainant's '994 patent, and which systems in part incorporate misappropriated trade secrets in their construction. Krupp has benefitted from the sales by collecting the profit

margins incident to the sales despite the fact that the sales have been in violation of United States law. Therefore, the Commission determined to set a bond in the amount of 25 percent of the value of the imported systems, or any components thereof where such components are imported separately, which the Commission has found to be in violation of section 337. The Commission believes that, in the event of a default on the bond, a bond in this amount will substantially offset the profitability to Krupp of any further importation in violation of section 337 during the period of Presidential review, and therefore will be a reasonable deterrent to any such importations.

In making this determination, we have considered the various proposals of the parties, including Krupp's representation that there is little likelihood of any importation by Krupp of a continuous copper rod production system which would be in violation of the Commission's order. However, these assurances notwithstanding, we have determined that a bond in the amount of 25 percent is appropriate in this case in order to protect complainant's rights.

3. The public interest.

We agree with the Commission Investigative attorney that there are no overriding public interest factors that would warrant the denial of remedies in this investigation. The evidence shows that Southwire produces a high quality system, comparable to and competitive with the Krupp system and that Southwire is willing and able to supply additional systems to the United States industry. It is in the public interest to prohibit the illegal use of United States patents and misappropriated trade secrets.



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Investigation no. 337-TA-52. Washington,
1979.

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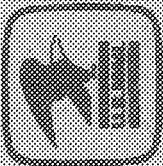
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II. Title: Certain apparatus for the
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III. Title: The continuous production of
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