

IN THE
UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

UNITED STATES OF AMERICA,)	
)	
Plaintiff,)	
)	
v.)	Civil Action
)	No. 8119
MINNESOTA MINING AND MANUFACTURING)	
COMPANY, BEHR-MANNING CORPORATION,)	Filed November 6, 1950
THE CARBORUMDUN COMPANY, ARMOUR)	
AND COMPANY, DUREX ABRASIVES COR-)	
PORATION and THE DUREX CORPORATION,)	
)	
Defendants.)	

FINAL JUDGMENT AS TO COUNT ONE

The plaintiff, United States of America, having filed its amended complaint herein on July 5, 1949; the defendants having appeared and filed their separate answers to Count One of the amended complaint denying any violation of law; Count Two of the amended complaint having been tried and final judgment having been entered thereon on September 13, 1950; and the plaintiff and said defendants, by their respective attorneys herein, having severally consented to the entry of this Final Judgment as to Count One without trial or adjudication of any issue of fact or law herein, and without admission by any party in respect of any such issue,

NOW, THEREFORE, before any testimony or evidence has been taken herein, and without trial or adjudication of any issue of fact or law herein, and upon consent as aforesaid of all of the parties hereto,

IT IS HEREBY ORDERED, ADJUDGED AND DECREED as to Count One of the amended complaint as follows:

I.

This Court has jurisdiction of the subject matter hereof and of all parties hereto. Count One of the amended complaint states a cause of

ion against the defendants under Sections 1 and 2 of the Act of Congress July 2, 1890, entitled "An Act to Protect Trade and Commerce against awful Restraints and Monopolies," as amended.

II

For purposes of this judgment,

- A. "Minnesota" means the defendant Minnesota Mining and Manufacturing Company, a corporation organized and existing under the laws of the State of Delaware;
- B. "Behr-Manning" means the defendant Behr-Manning Corporation, a corporation organized and existing under the laws of the State of Massachusetts;
- C. "Carborundum" means the defendant The Carborundum Company, a corporation organized and existing under the laws of the State of Delaware;
- D. "Armour" means the defendant Armour and Company, a corporation organized and existing under the laws of the State of Illinois;
- E. "Defendants" means Minnesota, Behr-Manning, Carborundum and Armour;
- F. "Coated Abrasive Products" means any non-rigid abrasive or polishing article which comprises a flexible sheet or sheetlike backing to one or both surfaces of which there is attached by an adhesive a coating of one or more layers of abrasive or polishing grain, including rigid or non-rigid abrading or polishing articles made therefrom to be used for abrading or polishing purposes;
- G. "Defined Patents" means United States letters patent, patent applications and rights under letters patent, as follows:
 - (1) all letters patent, rights under letters patent, and applications for letters patent, now owned or controlled by any of the defendants, and all letters patent which may issue on or result from said applications,

(2) all letters patent, rights under letters patent, and applications for letters patent, issued to, acquired, or filed by, any of the defendants during the five years following the date of the entry of this judgment, and all letters patent which may issue on or result from said applications,

(3) all divisions, continuances, reissues, or extensions of the patents and applications described above in clauses (1) and (2),

relating to Coated Abrasive Products and any method, material, equipment or process involved in the production or manufacture of Coated Abrasive Products.

III

The provisions of this judgment applicable to any defendant shall apply to such defendant, its successors, subsidiaries, assigns, officers, directors, agents, employees and all other persons acting or claiming to act under, through or for such defendant.

IV

Each of the patent license and cross license agreements relating in whole or in part to Coated Abrasive Products or any method, material, equipment or process involved in the production or manufacture of Coated Abrasive Products, to which any of the defendants is presently a party as licensor, including, but without limitation, the following agreements, is hereby terminated and canceled in its entirety; and each of the defendants is hereby enjoined and restrained from the further performance or enforcement of any of said agreements, or from entering into, adopting, adhering to, or furthering any agreement, arrangement, or course of conduct for the purpose or with the effect of maintaining, reviving or reinstating any of said agreements:

- A. the Patent License Agreements Relating to Waterproof Sandpaper, dated as of June 1, 1949, between Minnesota,

- as licensor, and Armour, Behr-Manning, and Carborundum,
as licensees, respectively;
- B. the Patent License Agreements Relating to Electro-coated Sandpaper between Behr-Manning, as licensor, and
- (1) Minnesota, as licensee, dated September 19, 1932,
 - (2) Armour, as licensee, dated October 13, 1932, and
 - (3) Carborundum, as licensee, dated January 11, 1933,
- each as amended by letter dated May 19, 1948;
- C. the licenses granted by the Spraying Agreement dated December 6, 1935 between Armour, Behr-Manning, Carborundum and Minnesota;
- D. the licenses granted by the Mechanical Orienting Agreement, dated March 6, 1936 between Armour, Behr-Manning, Carborundum and Minnesota;
- E. the Cross License Agreements dated as of March 17, 1943, as modified as of October 1, 1945, by and between Minnesota and Armour, Minnesota and Behr-Manning and Minnesota and Carborundum, Armour and Behr-Manning, Armour and Carborundum, and Behr-Manning and Carborundum, respectively;
- F. the license agreements entered into by the defendants pursuant to said Cross License Agreements, as follows:
- (1) the Adhesive Treatment License Agreements between Behr-Manning, as licensor, and
 - (a) Armour and Minnesota, as licensees, respectively, dated January 1, 1944,
 - (b) Carborundum, as licensee, dated May 1, 1945,
 - (c) Midwest Abrasive Company, as licensee, dated September 12, 1946;
 - (2) the license agreements under United States Letters Patent No. 2,358,724, dated as of January 1, 1945, between Behr-Manning, as licensor, and Armour, Carborundum and Minnesota, as licensees, respectively;

- (3) the license agreements under United States Letters Patent No. 2,286,208, between Carborundum, as licensor, and
- (a) Minnesota, as licensee, dated August 1, 1949,
 - (b) Armour, as licensee, dated February 1, 1950,
- and
- (c) Behr-Manning, as licensee, dated August 1, 1949,
- (4) the license agreements under United States Letters Patent No. 2,430,099 between Carborundum, as licensor, and
- (a) Minnesota, as licensee, dated November 1, 1948,
 - (b) Armour, as licensee, dated March 23, 1950,
 - (c) Behr-Manning, as licensee, dated November 1, 1948; and
 - (d) Mid-West Abrasive Company, as licensee, dated March 24, 1950;
- (5) the license agreements under United States Letters Patent No. 2,391,731 between Minnesota, as licensor, and
- (a) Carborundum, as licensee, dated August 1, 1946, and
 - (b) Behr-Manning, as licensee, dated September 1, 1948,
- and
- (6) the license agreements under United States Letters Patent Nos. 2,184,896, 2,302,711 and 2,333,035, dated as of October 1, 1945, between Behr-Manning, as licensor, and Armour and Carborundum, as licensees, respectively.

V

Each defendant is hereby ordered and directed:

- A. In so far as it now has or may acquire the power or authority to do so, to issue to any applicant (including any other defendant) making written request therefor a non-exclusive and

unrestricted license or sublicense to make, use and vend Coated Abrasive Products under any, some or all of the Defined Patents, including those presently owned or controlled by defendants as listed in Schedule "A" attached hereto, without any condition or restriction whatsoever, except that:

- (1) a reasonable and non-discriminatory royalty may be charged and collected;
- (2) reasonable provision may be made for periodic inspection of the books and records of the licensee by an independent auditor who may report to the defendant licensor only the amount of the royalty due and payable and no other information;
- (3) the license may be non-transferable;
- (4) reasonable provision may be made for cancellation of the license upon failure of the licensee to pay the royalties or to permit the inspection of its books and records as provided in Paragraph A of this Section V;
- (5) the license must provide that the licensee may cancel the license at any time by giving thirty (30) days' notice in writing to the licensor.

B. Within thirty (30) days after the date of application, issuance or acquisition of any of the Defined Patents, to advise this Court and the Attorney General, in writing, of the number and date of such application, issuance or acquisition.

C. Upon any application for a license in accordance with the provisions of Paragraph A of this Section V, the defendant to whom such application is made shall advise the applicant of the royalty it deems reasonable for the Defined Patent or Patents to which the application pertains. If the defendant

and the applicant are unable to agree upon what constitutes a reasonable royalty, the defendant may apply to this Court for a determination of a reasonable royalty, giving notice thereof to the applicant and the Attorney General, and shall make such application forthwith upon request of the applicant. In any such proceeding the burden of proof shall be upon the defendant to whom application is made to establish, by a fair preponderance of evidence, a reasonable royalty, and the Attorney General shall have the right to be heard thereon. Pending the completion of any such court proceeding, the applicant shall have the right to make, use and vend under the Defined Patent or Patents to which its application pertains, without the payment of royalty or other compensation, but subject to the following provisions: Such defendant may, with notice to the Attorney General, apply to the Court to fix an interim royalty rate pending final determination of what constitutes a reasonable royalty. If the Court fixes such interim royalty rate, a license shall then issue providing for the periodic payment of royalties at such interim rate from the date of the making of such application by the applicant; and whether or not such interim rate is fixed, any final order may provide for such readjustments including retroactive or diminished royalties as the Court may order after final determination of a reasonable and non-discriminatory royalty.

- D. Each license granted pursuant to this Section V shall provide that the licensee may at any time, without revoking or surrendering its license, dispute the validity, scope or enforceability of any of the patents under which the license is granted, and this judgment shall not be construed as importing any validity or value to any of such patents.

VI

Each defendant is hereby enjoined and restrained from:

- A. Making any disposition of any of the Defined Patents which deprives it of the power or authority to issue licenses or sublicenses required by Paragraph A of Section V unless it sells, transfers or assigns such Defined Patents and requires, as a condition of such sale, transfer or assignment that the purchaser, transferee, or assignee thereof shall observe the provisions of Section V of this judgment with respect to the Defined Patents so acquired and the purchaser, transferee or assignee shall file with this Court, prior to the consummation of said transaction, an undertaking to be bound by the provisions of Section V of this judgment with respect to the Defined Patents so acquired.
- B. Acquiring any license, sublicense, grant of immunity or similar right under any Defined Patent to make, use and vend Coated Abrasive Products, unless such license, sublicense, grant of immunity or similar right is non-exclusive and contains a provision that throughout its life the licensor will make available an equivalent license, sublicense, grant of immunity or similar right to any third person requesting the same, on terms and conditions at least as favorable as those accorded to said defendant.

VII

Each defendant is hereby ordered and directed, on written request,

sh to any licensee at the time of granting a license under Paragraph A or Section V of this judgment, upon payment of a purely nominal charge therefor, a written manual or manuals describing all the methods, processes, materials and equipment then currently used by it in commercial production or manufacture under the Defined Patents under which such applicant is licensed. Any such manual or manuals so furnished to a licensee shall be

made available to all prior licensees under the same Defined Patents, excepting the other defendants herein. In the event any such licensee shall find the information set forth in any such manual inadequate to enable successful utilization by that licensee of any of the methods, processes, materials or equipment described therein, and such licensee shall so inform in writing the defendant concerned, then such defendant is ordered and directed to furnish promptly, at the actual cost thereof to the defendant, such additional written information or technical assistance as shall be reasonably necessary to the successful utilization thereof. Any such additional written information shall be made available to all other licensees under the same Defined Patents, excepting the other defendants herein.

VIII

Subject to the provisions of Section VII of this judgment, each defendant is hereby enjoined and restrained from furnishing to any other defendant technical information relating to the production or manufacture of Coated Abrasive Products or methods, equipment, materials and processes to be used in the manufacture thereof, unless it furnishes such technical information to any other manufacturer of Coated Abrasive Products upon reasonable and non-discriminatory terms and conditions.

IX

Each defendant is hereby enjoined and restrained from entering into, adhering to, maintaining or furthering any combination, conspiracy, contract, agreement, understanding, plan or program, directly or indirectly, with any other manufacturer of Coated Abrasive Products:

- A. To fix, maintain, stabilize, determine or adhere to prices, discounts, customer classifications or other terms or conditions for the sale of Coated Abrasive Products;
- B. To limit, restrict, prevent or restrain any manufacturer of Coated Abrasive Products from making or selling any kinds, types, sizes, styles, or grades of Coated Abrasive Products, or from manufacturing or producing any Coated Abrasive Products

according to any standards or specifications.

X

Nothing contained herein shall be deemed to adjudicate, determine, or affect the legality or illegality of any agreement involving relationships solely between:

- A. A defendant and its subsidiaries;
- B. A defendant or its subsidiaries and its parent;
- C. Subsidiaries of any defendant and their subsidiaries.

XI

For the purpose of securing compliance with this judgment and for no other purpose, duly authorized representatives of the Department of Justice shall, upon written request of the Attorney General, or an Assistant Attorney General, and on reasonable notice to any defendant, made to its principal office, be permitted subject to any legally recognized privilege, (1) access during the office hours of said defendant to all books, ledgers, accounts, correspondence, memoranda, and other records and documents in the possession or under the control of said defendant relating to any matters contained in this judgment, and (2) subject to the reasonable convenience of said defendant and without restraint or interference from it to interview officers or employees of said defendant, who may have counsel present, regarding any such matters, and (3) upon request the defendant shall submit such reports in writing to the Department of Justice with respect to matters contained in this judgment as may from time to time be necessary to the enforcement of this judgment. No information obtained by the means provided in this Section XI shall be divulged by any representative of the Department of Justice to any person other than a duly authorized representative of such Department, except in the course of legal proceedings to which the United States is a party for the purpose of securing compliance with this judgment or as otherwise required by law.

XII

Jurisdiction is retained for the purpose of enabling any of the parties to this judgment to apply to this Court at any time for such further orders and directions as may be necessary or appropriate for the construction or carrying out of this judgment or for the modification or termination of any of the provisions thereof, and for the purpose of the enforcement of compliance therewith and the punishment of violations thereof.

Dated: Boston, Mass.

November 6, 1950

/s/ Wyzanski
United States District Judge

We hereby consent to the entry of the foregoing Final Judgment:

For the Plaintiff:

WM. AMORY UNDERHILL
Acting Assistant Attorney General

SIGMUND TIMBERG
Special Assistant to the
Attorney General

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United States Attorney

GEORGE W. WISE

MARCUS A. HOLLABAUGH

EDWIN H. PEWETT

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John L. Connelly

Robert C. Keck

Its Attorneys.

For Behr-Manning Corporation

George Link, Jr.

Its Attorney.

For The Carborundum Company

H. Struve Hensel

William S. Gaud, Jr.

Edgar C. Morrison

Its Attorneys.

For Armour and Company

George E. Leonard, Jr.

Its Attorney.

SCHEDULE "A"

Defined Patents Owned or Controlled by the Defendants.

<u>Patent No.</u>	<u>Dated</u>	<u>Inventor/s</u>
<u>ARMOUR AND COMPANY PATENTS:</u>		
1,991,645	Feb. 19, 1935	Woodward
1,994,263	March 12, 1935	Woodward
2,050,212	Aug. 4, 1936	Rizor
2,347,244	April 25, 1944	Colt
<u>BEHR-MANNING CORPORATION PATENTS:</u>		
1,987,467	Jan. 8, 1935	Crupi
2,027,087	Jan. 7, 1936	Buckner
Reissue 20,660) Original 2,027,307)	Jan. 7, 1936	Schact
2,027,308	Jan. 7, 1936	Schact
2,027,309	Jan. 7, 1936	Schact
2,082,182	June 1, 1937	Schact
Reissue 21,852) Original 2,123,581)	July 12, 1938	Anderson
2,124,055	July 19, 1938	Courtney
2,130,753	Sept. 20, 1938	Baker
2,136,150	Nov. 8, 1938	Oglesby
2,173,129	Sept. 19, 1939	Oglesby
2,173,130	Sept. 19, 1939	Oglesby
2,173, 796	Sept. 19, 1939	Oglesby
2,175,073	Oct. 3, 1939	Amstuz
2,184,896	Dec. 26, 1939	Oglesby
2,197,741	April 16, 1940	Boucher
2,198,766	April 30, 1940	Gallagher
2,199,752	May 7, 1940	Oglesby
2,209,715	July 30, 1940	Crupi
2,209,716	July 30, 1940	Crupi

<u>Patent No.</u>	<u>Dated</u>	<u>Inventor/s</u>
2,217,247	Oct. 8, 1940	(Walker (Burns
2,217,525	Oct. 8, 1940	Oglesby
2,239,828	April 29, 1941	Oglesby
2,245,301	June 10, 1941	Schact
2,279,361	April 14, 1942	Amstuz
2,287,837	June 30, 1942	Smyser
2,288,624	July 7, 1942	Holmsten
2,288,625	July 7, 1942	Holmsten
2,292,991	Aug. 11, 1942	Crompton
2,294,064	Aug. 25, 1942	Amstuz
2,302,711	July 24, 1942	(Oglesby (Strain
2,305,157	Dec. 15, 1942	Nam
2,307,232	Jan. 5, 1943	Oglesby
2,318,570	May 4, 1943	Carlton
2,318,571	May 4, 1943	Carlton
2,322,156	June 15, 1943	Oglesby
2,328,577	Sept. 7, 1943	Oglesby
2,333,034	Oct. 26, 1943	(Oglesby (Reilly (Gilbert
2,333,035	Oct. 26, 1943	Oglesby
2,339,208	Jan. 11, 1944	Ban der Pyl
2,358,724	Sept. 19, 1944	Manchester
2,370,636	March 6, 1945	Carlton
2,375,813	May 16, 1945	Oglesby
2,375,814	May 15, 1945	Oglesby
2,376,342	May 22, 1945	Carlton
2,376,343	May 22, 1945	Carlton
2,403,018	July 2, 1946	Oglesby
2,456,985	Dec. 21, 1948	Oglesby
2,463,241	March 1, 1949	Carlton

<u>Patent No.</u>	<u>Dated</u>	<u>Inventor/s</u>
2,463,242	March 1, 1949	Carlton
2,485,765	Oct. 25, 1949	Oglesby

BEHR-MANNING CORPORATION PATENT APPLICATIONS:

733,614	March 10, 1947	Waterfield
761,750	July 18, 1947.	(Webber (Timmer

THE CARBORUNDUM COMPANY PATENTS:

1,941,962	Jan. 2, 1934	Tone
1,944,898	Jan 30, 1934	McKee
1,988,065	Jan. 15, 1935	Wooddell
1,989,742	Feb. 5, 1935	Davis
1,994,283	March 12, 1935	Martin
2,015,658	Oct. 1, 1935	Bezzenberger
2,033,991	March 17, 1936	(Melton (Benner
2,035,521	March 31, 1936	(Benner (Melton (Kirchner
2,049,535	Aug. 4, 1936	(Benner (Kirchner (Melton
2,050,992	Aug 11, 1936	Aust
2,053,360	Sept. 8, 1936	(Benner (Melton
2,053,361	Sept. 8, 1936	(Benner (Melton
2,059,583	Nov. 3, 1936	(Jackson (Kirchner
2,071,549	Feb. 23, 1937	Mahlman
Reissue 21,552) Original 2,078,831)	April 27, 1937	(Benner (Melton
2,082,916	June 8, 1937	Stratford
2,097,806	Nov. 2, 1937	Weidrich
2,108,645	Feb. 15, 1938	Bryant
2,111,006	March 15, 1938	Robie

<u>Patent No.</u>	<u>Dated</u>	<u>Inventor/s</u>
2,111,272	March 15, 1938	Paulson
2,115,904	May 3, 1938	Bryant
2,124,666	July 26, 1938	(Benner (Melton
2,128,905	Sept. 6, 1938	(Benner (Melton
2,128,906	Sept. 6, 1938	(Benner (Melton
2,128,907	Sept. 6, 1938	(Benner (Melton
2,128,966	Sept. 6, 1938	Robie
2,129,661	Sept. 13, 1938	Ball
2,129,954	Sept 13, 1938	(Martin (Upper (Aust
2,130,194	Sept. 13, 1938	Robie
2,138,882	Dec. 6, 1938	Robie
2,141,658	Dec. 27, 1938	(Melton (Benner (Kirchner
2,152,392	March 28, 1939	Tone
2,179,487	Nov. 14, 1939	(Benner (Robie
2,184,348	Dec. 26, 1939	(Kirchner (Melton (Benner
2,187,624	Jan. 16, 1940	(Melton (Benner (Kirchner
2,187,743	Jan. 23, 1940	(Kirchner (Wooddell
2,191,827	Feb. 27, 1940	(Benner (Melton
2,194,253	March 19, 1940	(Benner (Melton (Kirchner
2,194,472	March 26, 1940	Jackson
2,201,194	May 21, 1940	(Melton (Benner (Kirchner

<u>Patent No.</u>	<u>Dated</u>	<u>Inventor/s</u>
2,201,195	May 21, 1940	(Melton (Benner (Kirchner
2,201,196	May 21, 1940	Williamson
2,205,276	June 18, 1940	Robie
2,209,059	July 23, 1940	Kirchner
2,209,074	July 23, 1940	Dahlstrom
2,215,210	Sept. 17, 1940	Dahlstrom
2,219,853	Oct. 29, 1940	Tone
2,223,392	Dec. 3, 1940	Smith
2,224,009	Dec. 3, 1940	Aust
2,225,877	Dec. 24, 1940	(Melton (Kirchner
2,225,937	Dec. 24, 1940	Williamson
2,227,200	Dec. 31, 1940	Robie
2,229,490	Jan. 21, 1941	(Benner (Melton (Kirchner
2,233,175	Feb. 25, 1941	(Melton (Benner
2,250,119	July 22, 1941	Williamson
2,252,587	Aug. 12, 1941	(Tone (Martin
2,254,016	Aug. 26, 1941	(Melton (Benner (Kirchner
2,254,531	Sept. 2, 1941	(Kirchner (Melton (Benner
2,255,294	Sept. 9, 1941	(Melton (Benner (Kirchner
2,274,726	March 3, 1942	Melton
2,276,328	March 17, 1942	(Melton (Benner (Kirchner
2,277,520	March 24, 1942	(Martin (Foss

<u>Patent No.</u>	<u>Dated.</u>	<u>Inventor/s</u>
2,280,852	April 28, 1942	Robie
2,286,208	June 16, 1942	Kirchner
2,288,649	July 7, 1942	Robie
2,298,318	Oct. 13, 1942	Stratford
2,309,305	Jan. 26, 1943	(Dahlstrom (Horne
2,317,650	April 27, 1943	Stratford
2,320,139	May 25, 1943	Kirchner
2,321,422	June 8, 1943	Robie
2,324,426	July 13, 1943	Robie
2,324,427	July 13, 1943	Robie
2,327,218	Aug. 17, 1943	Robie
2,337,445	Dec. 21, 1943	Buell
2,339,500	Jan. 18, 1944	Martin
2,349,365	May 23, 1944	(Martin (Aust
2,350,861	June 6, 1944	(Argy (Foss
2,351,716	June 20, 1944	Smith
2,366,926	Jan. 9, 1945	Melton
2,378,025	June 12, 1945	(Melton (Thompson
2,402,183	June 18, 1946	(Rowe (Goepfert
2,410,506	Nov. 5, 1946	(Kirchner (Ball
2,412,599	Dec. 17, 1946	Buell
2,430,099	Nov. 4, 1947	Bradley
2,431,035	Nov. 18, 1947	(Goepfert (Buell
2,431,258	Nov. 18, 1947	Kirchner
2,445,807	July 27, 1948	(Summers (Corse
2,452,793	Nov. 2, 1948	Robie

<u>Patent No.</u>	<u>Dated</u>	<u>Inventor/s</u>
2,457,256	Dec. 28, 1948	(Melton (Benner (Kirchner
2,468,056	April 26, 1949	(Goepfert (Robie
2,490,231	Dec. 6, 1949	(Robie (Ball
2,497,469	Feb. 14, 1950	Robie

THE CARBORUNDUM COMPANY PATENT APPLICATIONS:

142,524	Feb. 4, 1950	(Foss (Buell
186,052	Sept. 21, 1950	(Goepfert (Canfield
345,596	July 15, 1940	(Tone (Martin
469,232	Dec. 16, 1942	Robie
559,429	Oct. 19, 1944	Robie
610,479 1/2	Aug. 13, 1945	(Melton (Benner (Kirchner
758,282	July 1, 1947	(Robie (Mahlman

MINNESOTA MINING AND MANUFACTURING COMPANY PATENTS:

2,013,925	Sept. 10, 1935	Okie
2,025,249	Dec. 24, 1935	Shuey
2,030,743	Feb. 11, 1936	Carlton
2,169,277	Aug. 15, 1939	Okie
2,176,942	Oct. 24, 1939	Redman
2,186,001	Jan. 9, 1940	Bartling
2,188,341	Jan. 30, 1940	(Elbel (Seebach
2,197,629	April 16, 1940	Bartling
2,202,765	May 28, 1940	Guth
2,219,263	Oct. 22, 1940	Okie
2,219,278	Oct. 22, 1940	Okie

<u>Patent No.</u>	<u>Dated</u>	<u>Inventor/s</u>
2,220,140	Nov. 5, 1940	Bartling
2,226,553	Dec. 31, 1940	Cross
2,230,934	Feb. 4, 1941	(Carlton (Oakes
2,236,597	April 1, 1941	Hatch
2,248,064	July 8, 1941	(Carlton (Miller
2,248,853	July 8, 1941	(Carlton (Miller
2,269,415	Jan. 6, 1942	(Netherly (Anderson (Cross
2,269,416	Jan. 6, 1942	(Netherly (Anderson (Cross
2,281,558	May 5, 1942	Cross
2,287,060	June 23, 1942	Oakes
2,307,461	Jan. 5, 1943	Guth
2,310,935	Feb. 16, 1943	(Carlton (Oakes
2,314,340	March 23, 1943	(Brown (Clarke
2,314,349	March 23, 1943	Guth
2,347,662	May 2, 1944	(Carlton (Oakes
2,357,335	Sept. 5, 1944	(Eugler (Oakes
2,357,348	Sept. 5, 1944	(Netherly (Cross (Anderson
2,357,350	Sept. 5, 1944	Oakes
2,357,823	Sept. 12, 1944	(Hatch (Clarke
2,358,313	Sept. 19, 1944	Brown
2,371,605	March 20, 1945	(Carlton (Miller
2,386,780	Oct. 16, 1945	Cross
2,391,731	Dec. 25, 1945	(Miller (Reidesel

<u>Patent No.</u>	<u>Dated</u>	<u>Inventor/s</u>
2,405,191	Aug. 6, 1946	Davis
2,414,474	Jan. 21, 1947	March
2,492,143	Dec. 27, 1949	(Gipple (Sindt

MINNESOTA MINING AND MANUFACTURING COMPANY PATENT APPLICATIONS:

433,028	March 2, 1942	Carlton
514,982	Dec. 20, 1943	Nestor
643,730	Jan. 26, 1946	(Frigstad (Clarke
757,929	June 28, 1947	Nestor
34,804	June 23, 1948	(Cross (Netherly
39,587	July 19, 1948	(McNamara (Kugler
40,424	July 23, 1948	(Frigstad (Dahl
43,528	Aug. 10, 1948	(Cross (Netherly
44,233	Aug. 13, 1948	Frigstad
60,772	Nov. 18, 1948	Liedl et al.
85,322	April 4, 1949	Heasley
89,155	April 22, 1949	Nestor
128,298	Nov. 19, 1949	(Alstad (Frigstad
128,299	Nov. 19, 1949	(Reidesel (Frigstad
131,072	Dec. 5, 1949	Reidesel
160,752	May 8, 1950	Kuzma et al.
169,756	June 22, 1950	(Cross (Netherly
172,102	July 5, 1950	Kuzma et al.