

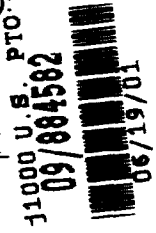


To the Honorable Commissioner of Patents and Trademarks
101761612

attached original documents or copy thereof.

1. Name of conveying party(ies): 06/19/01
David T. Hearst and John Schupp
Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies):
Name: ACT Optics & Engineering, Inc.
Street Address: 8200 Tyler Blvd., Unit M
City: Mentor State: Ohio
Zip: 44060
Additional name(s) of receiving party(ies) attached? Yes No



3. Nature of Conveyance:
 Assignment Merger
 Security Agreement Change of Name
 Other _____
Execution Date: May 10, 2001 and May 25, 2001

4. Application number(s) or patent number(s):
If this document is being filed together with a new application, the execution date of the application is: May 10, 2001 and May 25, 2001
A. Patent Application No.(s): 09/884582
B. Patent No.(s): _____
Additional number(s) attached? Yes No

5. Name and address of party to whom correspondence concerning this document should be mailed:
Name: David B. Deioma
Street Address: 526 Superior Avenue East
Suite 1200
City: Cleveland State: OH Zip: 44114-1484

6. Total number of applications and patents involved: 1
7. Total Fee (37 C.F.R. §3.41)\$40.00
 Enclosed
 Authorized to be charged to Deposit Account for any uncovered fees
8. Deposit Account No.
16-0820, Order No. 33724
(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and Signature.
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.
David B. Deioma David B. Deioma June 19, 2001
Name of Person Signing Signature Date

Total number of pages including cover sheet, attachments, and document: _

ASSIGNMENT

WHEREAS, new and useful improvements have been made by the undersigned in

SUPPLEMENTAL HEATING UNIT FOR CYRSTAL GROWTH FURNACE

and are the subject of a patent application prepared for filing in the United States Patent and Trademark Office, and executed by the undersigned on the dates indicated below, which application is further identified as Pearne & Gordon LLP Docket No. 33724.

WHEREAS, ACT Optics & Engineering, Inc., a corporation of Ohio, having a place of business at 8200 Tyler Boulevard, Unit M, Mentor, Ohio 44060, hereinafter referred to as "assignee", is desirous of acquiring all right, title, and interest throughout the world in, to, and under said improvements and inventions and patent rights therefor.

NOW, THEREFORE, be it known that, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, all right, title, and interest, in the United States and throughout the world, in, to and under said improvements and inventions and all patents, patent applications, patent rights, and inventor's certificates thereof, therefor, and therein, including without limitation said application for patent in the United States, all divisions and continuations thereof, all patents which may be granted thereon, all reissues and extensions thereof, all right to sue for past infringement thereunder, all patents which may be granted for said improvements and inventions by states or nations other than the United States, or by other authority, entity, or organization, and all applications therefor, have been and are hereby sold, assigned, transferred, and delivered unto assignee, its successors and assigns; and it is covenanted and agreed by the undersigned, and for executors, administrators, and legal representatives of the undersigned, that at assignee's request any and all applications, affidavits, assignments, and other instruments will be made, executed, and delivered as may be necessary, or desirable to secure for or vest in assignee, its successors or assigns, any improvement, inventions, right, title, interest, application, patent, patent right or other right or property covered by this assignment, and the United States Commissioner of Patents and Trademarks is hereby requested and authorized to issue any and all United States patents granted on any of said applications to assignee as owner of the entire right, title, and interest in, to, and under the same, and appropriately empowered officials of foreign countries are hereby authorized to issue any letters patent granted on any of said applications to assignee as owner of the entire right, title and interest in, to, and under the same.

The undersigned hereby grants the firm of Pearne & Gordon LLP the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, this assignment has been executed below by the undersigned:

David T. Hearst
David T. Hearst

10 May 2001
Date I signed this assignment

10 May 2001
Date I signed Declaration or Oath

Post Office Address: 2400 Drake School Road, Hermann, MO 65041

John Schupp
John Schupp

25 MAY 2001
Date I signed this assignment

25 MAY 2001
Date I signed Declaration or Oath

Post Office Address: 10770 Chillicothe Road, Kirtland, OH 44094

STATE OF Missouri }
COUNTY OF Gasconade } ss.

The above named David T. Hearst, known to me, appeared before me this 10th day of May, 2001, and acknowledged that the foregoing instrument was executed as his free act and deed for the uses and purposes therein set forth.

JANET WITTHAUS
Notary Public - Notary Seal
STATE OF MISSOURI
Gasconade County
My Commission Expires: April 25, 2005

(Notarial Seal)

Janet Witthaus
Notary Public

STATE OF OHIO }
COUNTY OF LAKE } ss.

The above named John Schupp, known to me, appeared before me this 25th day of May, 2001, and acknowledged that the foregoing instrument was executed as his free act and deed for the uses and purposes therein set forth.

NANCY A. DENNIS
Notary Public, State of Ohio
My Commission Expires Jan. 16, 2006
(Recorded in Lake County)

(Notarial Seal)

Nancy A. Dennis
Notary Public