As filed with the Securities and Exchange Commission on July 30, 2007

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

A. O. SMITH CORPORATION

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) **39-0619790** (I.R.S. Employer Identification No.)

11270 West Park Place Milwaukee, Wisconsin (Address of principal executive offices) 53224-9508 (Zip Code)

A. O. Smith Combined Incentive Compensation Plan

(Full title of the plan)

James F. Stern, Esq. Executive Vice President, General Counsel and Secretary A. O. Smith Corporation 11270 West Park Place Milwaukee, Wisconsin 53224-9508 (414) 359-4000 (Name, address and telephone number, including area code, of agent for service) Copy to: Patrick G. Quick, Esq. Foley & Lardner LLP 777 East Wisconsin Avenue Milwaukee, Wisconsin 53202 (414) 271-2400

CALCULATION OF REGISTRATION FEE

	Amount to be	Proposed maximum offering price	Proposed maximum aggregate	Amount of
Title of securities to be registered	registered(1)	per share	offering price	registration fee
Common Stock, \$1 par value	1,250,000 shares	\$ 50.035(2)	\$62,543,750(2)	\$ 1,920.10

(1) Pursuant to Rule 416(a) under the Securities Act of 1933, this Registration Statement also covers an indeterminate number of additional shares of Common Stock that may become issuable as a result of stock splits, stock dividends or similar transactions pursuant to the anti-dilution provisions of the A. O. Smith Combined Incentive Compensation Plan.

(2) Estimated pursuant to Rule 457(c) under the Securities Act of 1933 solely for the purpose of calculating the registration fee based on the average of the high and low prices for A. O. Smith Corporation Common Stock on the New York Stock Exchange on July 25, 2007.

Pursuant to Rule 429 under the Securities Act of 1933, the Prospectus referred to herein also relates to the Registrant's Registration Statement on Form S-8 (Registration No. 333-92428).

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The document or documents containing the information specified in Part I are not required to be filed with the Securities and Exchange Commission (the "Commission") as part of this Form S-8 Registration Statement.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed with the Commission by A. O. Smith Corporation (the "Company") are hereby incorporated herein by reference:

1. The Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2006.

2. The Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2007.

3. The Company's Current Reports on Form 8-K dated February 13, 2007, February 15, 2007, April 9, 2007 and July 9, 2007.

4. The description of the Company's Common Stock contained in Item 4 of the Company's Registration Statement on Form 8-A, filed December 9, 1994, including any amendment or report filed for the purpose of updating such description.

All documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, after the date of filing of this Registration Statement and prior to such time as the Company files a post-effective amendment to this Registration Statement which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents.

Item 4. <u>Description of Securities</u>.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

None.

-2-

Item 6. Indemnification of Directors and Officers.

Under the provisions of Section 145 of the Delaware General Corporation Law, the Company is required to indemnify any present or former officer or director against expenses arising out of legal proceedings in which the director or officer becomes involved by reason of being a director or officer if the director or officer is successful in the defense of such proceedings. Section 145 also provides that the Company may indemnify a director or officer in connection with a proceeding in which he is not successful in defending if it is determined that he acted in good faith and in a manner reasonably believed to be in or not opposed to the best interests of the Company or, in the case of a criminal action, if it is determined that he had no reasonable cause to believe his conduct was unlawful. Liabilities for which a director or officer may be indemnified include amounts paid in satisfaction of settlements, judgments, fines and other expenses (including attorneys' fees incurred in connection with such proceedings). In a stockholder derivative action, no indemnification may be paid in respect of any claim, issue or matter as to which the director or officer has been adjudged to be liable to the Company (except for expenses allowed by a court).

Under the provisions of Article VII of the Company's By-Laws and individual indemnity agreements between the Company and its directors and certain of its officers, the Company is required to indemnify officers or directors to a greater extent than under the current provisions of Section 145 of the Delaware General Corporation Law. Except with respect to stockholder derivative actions, the By-Law provisions and the indemnity agreements generally state that the director or officer will be indemnified against expenses, amounts paid in settlement and judgments, fines, penalties and/or other amounts incurred with respect to any threatened, pending or completed proceeding (including, without limitation, proceedings brought under and/or predicated upon the Securities Act of 1933 and/or the Securities Exchange Act of 1934); provided that (i) such individual did not engage in criminal, fraudulent or intentional misconduct in the performance of his duties to the Company; (ii) with respect to criminal actions, such individual had no reasonable cause to believe his conduct was unlawful; and (iii) with respect to securities law actions, such individual acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Company and its stockholders.

The foregoing standards also apply with respect to the indemnification of expenses incurred in a stockholder derivative suit. However, in order for a director or officer to be indemnified for settlement amounts or judgments incurred in a derivative suit, it also must be determined that (i) such individual has not breached his duty of loyalty to the Company or its stockholders; (ii) has not committed acts or omissions in bad faith or which involve intentional misconduct or a knowing violation of the law; (iii) has not engaged in any willful or negligent conduct in paying dividends or repurchasing stock of the Company out of other than lawfully available funds; and (iv) has not derived an improper personal benefit from the subject transaction.

-3-

The Company maintains insurance policies that provide coverage to its directors and officers against certain liabilities.

Item 7. <u>Exemption from Registration Claimed</u>.

Not applicable.

Item 8. <u>Exhibits</u>.

The exhibits filed herewith or incorporated herein by reference are set forth in the attached Exhibit Index.

Item 9. <u>Undertakings</u>.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Securities and Exchange Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

-4-

(4) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, in a primary offering of securities of the Registrant pursuant to this Registration Statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the Registrant relating to the offering required to be filed pursuant to Rule 424 under the Securities Act of 1933;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the Registrant or used or referred to by the Registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the Registrant or its securities provided by or on behalf of the Registrant; and

(iv) Any other communication that is an offer in the offering made by the Registrant to the purchaser.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

-5-

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Milwaukee, State of Wisconsin, on this 30th day of July, 2007.

A. O. SMITH CORPORATION

By: /s/ Paul W. Jones

Paul W. Jones

Chairman, President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated. Each person whose signature appears below constitutes and appoints Paul W. Jones, Terry M. Murphy and James F. Stern, and each of them individually, his or her attorneys-in-fact and agents, with full power of substitution and resubstitution for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Signature	Title	Date
/s/ Paul W. Jones Paul W. Jones	Chairman of the Board, President, Chief Executive Officer and Director (Principal Executive Officer)	July 30, 2007
/s/ Terry M. Murphy Terry M. Murphy	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	July 30, 2007
/s/ John J. Kita John J. Kita	Senior Vice President, Corporate Finance and Controller (Principal Accounting Officer)	July 30, 2007
	S-1	

Signature	Title	Date
/s/ Ronald D. Brown Ronald D. Brown	Director	July 10, 2007
/s/ William F. Buehler William F. Buehler	Director	July 10, 2007
/s/ Gloster B. Current, Jr. Gloster B. Current, Jr.	Director	July 10, 2007
/s/ William P. Greubel William P. Greubel	Director	July 10, 2007
/s/ Robert J. O'Toole Robert J. O'Toole	Director	July 10, 2007
/s/ Bruce M. Smith Bruce M. Smith	Director	July 10, 2007
/s/ Mark D. Smith Mark D. Smith	Director	July 10, 2007
/s/ Idelle K. Wolf Idelle K. Wolf	Director	July 10, 2007
/s/ Gene C. Wulf Gene C. Wulf	Director	July 10, 2007

S-2

EXHIBIT INDEX

Exhibit <u>Number</u> Exhibit Description

- (4.1) A. O. Smith Combined Incentive Compensation Plan (incorporated by reference to Exhibit A to the Company's Definitive Proxy Statement on Schedule 14A for the Company's 2007 Annual Meeting of Shareholders, filed on March 7, 2007 (File No. 1-475).
- (4.2) Restated Certificate of Incorporation of A. O. Smith Corporation (incorporated by reference to Exhibit 3(i) to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2006 (File No. 1-475).
- (4.3) Credit Agreement, dated as of February 17, 2006, among A. O. Smith Corporation, various financial institutions, M&I Marshall & Ilsley Bank, U.S. Bank National Association and Wells Fargo Bank, N.A., as Co-Documentation Agents, and the Bank of America, N.A., as Administrative Agent, incorporated by reference to the Form 8-K filed on February 23, 2006. (File No. 1-475).
- (4.4) The Registrant has instruments that define the rights of holders of long-term debt that are not being filed with this Registration Statement in reliance upon Item 601(b)(4)(iii) of Regulation S-K. The Registrant agrees to furnish to the Securities and Exchange Commission, upon request, copies of these instruments.
- (4.5) Form of A.O. Smith Corporation Executive Incentive Compensation Award Agreement.
- (5) Opinion of James F. Stern.
- (23.1) Consent of Ernst & Young LLP.
- (23.2) Consent of James F. Stern (contained in Exhibit (5)).
- (24) Power of Attorney (contained on the signature page hereto).

A. O. SMITH CORPORATION

EXECUTIVE INCENTIVE COMPENSATION AWARD AGREEMENT

FOR _____

THIS AGREEMENT, made and entered into this _____ day of ______ by and between A. O. Smith Corporation (hereinafter called the "Company") and _____ (hereinafter called "Executive");

WITNESSETH:

WHEREAS, the Board of Directors of the Company has adopted the A. O. Smith Corporation Combined Incentive Compensation Plan, as amended ______, (hereinafter called the "Plan") which is administered by the Personnel and Compensation Committee of the Board of Directors (hereinafter called the "Committee");

WHEREAS, the Executive, upon the terms and conditions herein set forth, will be a participant for the fiscal year of the Company commencing ______, (hereinafter called the "Plan Year") under the Plan, the terms and conditions of which Plan are incorporated herein by reference;

WHEREAS, this Agreement constitutes a separate contract such as is provided for in the Plan;

NOW, THEREFORE, in consideration of the payments herein provided, and of the covenants and agreements herein set forth, the parties hereby mutually covenant and agree as follows:

- I. <u>Employment</u>. Executive agrees to remain in the employ of the Company for the entire Plan Year, but it is understood that the Executive's employment may be terminated at any time by the Company.
- II. <u>Awards</u>. The Company, subject to the limitations of the Plan, shall provide the Executive the following Awards subject to the conditions set forth in the Plan.
 - A. Restricted Stock Units (Phantom Stock)
 - (i) The Executive shall, receive an award of ______ Restricted Stock Units which shall vest on ______. As soon as practicable after the vesting date, the Executive will

receive _____ Shares of Company stock, except as provided in (iii) below. The Executive will be subject to any tax withholding requirement at the time the Shares are issued.

- (ii) The Executive will be credited with dividends on Restricted Stock Units equivalent to the amount declared on actual shares of Company stock. These equivalent dividends will be credited on January 31st following each calendar year to the Executive's Profit Sharing Account under the Supplemental Profit Sharing Plan. If the Executive does not have an account in the Supplemental Profit Sharing Plan, he shall receive a cash payment for the equivalent dividends on January 31st following each calendar year they are credited.
- (iii) If the Executive is a "covered employee" under Code Section 162(m) in calendar year _____ and the receipt of Shares would cause some portion of the Executive's compensation to be non-deductible by the Company, then there shall be a mandatory deferral of the number of Shares necessary to reduce the Executive's compensation to a level that is fully deductible by Company. Shares mandatorily deferred under this provision shall be distributed to the Executive on _____ of the calendar year immediately following the year in which the Executive terminates employment with the Company.
- (iv) If the Executive ceases to be an employee of the Company prior to ______ by reason of death, disability, retirement, or involuntary termination due to the sale of an operating unit, Restricted Stock Units will still vest on ______. If Executive's employment with the Company is terminated prior to ______ by reason of dismissal or voluntary resignation, the Restricted Stock Units shall be forfeited.

B. Stock Option

- (ii) The price to be paid for the Shares upon exercise of this option shall be \$_____ per Share which is equal to the average of the high and low sales price of the Shares on the New York Stock Exchange on the grant date of _____.
- (iii) This option is exercisable as follows:
 - a) _____ Shares become exercisable on _____

- b) _____ Shares become exercisable on _____
- c) _____ Shares become exercisable on _____.
- (iv) The right to exercise the option expires on _____
- (v) Except as provided below, this option may only be exercised by the Executive while in the employ of the Company.
- (vi) This option may be exercised only by written notice served by the Executive upon the Secretary of the Company at its office at Milwaukee, Wisconsin, specifying the number of Shares in respect to which this option is being exercised, accompanied by payment for such Shares in such form as the Company may deem acceptable. Such Shares upon payment of the purchase price shall be fully paid and non-assessable.
- (vii) This option shall not be transferable by the Executive otherwise than by will or the laws of descent and distribution, and may be exercised, during the life of the Executive, only by the Executive.
- (viii) This option shall be subject to the following events and shall be disposed of, or acted upon, in the manner set forth below:
 - a) If the Executive ceases to be an employee of the Company for any reason other than disability, retirement, death, or involuntary termination due to the sale of an operating unit, then this option shall terminate;
 - b) If the Executive ceases to be an employee of the Company by reason of disability or retirement, then this option shall terminate at the earlier of five (5) years from the date of termination of employment or _____;
 - c) If the Executive ceases to be an employee of the Company by reason of death or involuntary termination due to the sale of an operating unit, then this option shall terminate at the earlier of one (1) year from the date of death or involuntary separation or
- (ix) Executive agrees in behalf of Executive, and the heirs, legatees, and legal representatives of Executive, with respect to all Shares (or any Shares of the Company's Common Stock issued pursuant to a stock dividend or stock split thereon or any securities issued in

lieu thereof or in substitution or exchange therefor), that Executive, and the heirs, legatees, and legal representatives of Executive, will comply with such restrictions as may be necessary to satisfy the requirements of the Securities Act of 1933.

- (x) Executive shall not be deemed for any purposes to be a stockholder of the Company with respect to any of the Shares except to the extent that this option shall have been exercised with respect thereto and a stock certificate issued therefor.
- (xi) The existence of this option shall not affect in any way the right or power of the Company or its stockholders to make or authorize any or all adjustments, recapitalizations, reorganizations or other changes in the Company's capital structure or its business, or any merger or consolidation of the Company, or any issue of bonds, debentures, preferred or prior preference stock of, or affecting the common stock of, the Company or the rights thereof, or dissolution or liquidation of the Company, or any sale or transfer of all or part of its assets or business, or any other Corporate act or proceeding, whether of a similar character or otherwise.

C. Performance Award

(i) The Executive shall receive an award of ______ Performance Units with a value of \$_____ per unit at the payment date. The Executive shall earn a percentage of the Performance Unit award upon achievement of a Performance Goal based on the Return on Invested Capital ("ROIC") as a percentage of the cost of capital during the period January 1, _____ through December 31, _____. ROIC is calculated by taking net income before after-tax cost of interest divided by total capital including all debt and stockholders' equity. The Performance Goal is calculated as follows:

ROIC as % of cost of capital =	Average ROIC during January 1, through December 31,

Year End _____ Cost of Capital

Performance Goal	Percentage of Performance Units Earned
% or less	0%
0	100%
% or more	150%

Percentage earned will be interpolated between points on the table.

- (ii) Performance awards which have been earned shall be paid to the Executive no later than ______ in cash, stock, or a combination of both, at the discretion of the Committee.
- (iii) Performance Goals shall be adjusted by the Committee to account for non-reoccurring factors, extraordinary gains or losses, changes in accounting, acquisitions and divestures of more than \$_____, stock issuances, stock dividends or stock buybacks in excess of ______Shares.
- (iv) If the Executive ceases to be an employee of the Company prior to December 31, _____ by reason of death, disability, retirement, or involuntary termination due to the sale of an operating unit, the Executive or his beneficiary shall be entitled to receive a pro-rata portion of the Award based on the period of his employment during the three-year performance period. If the Executive's employment with the Company shall be terminated prior to December 31, _____ by reason of dismissal or voluntary resignation, no Award shall be payable.

D. Annual Incentive Compensation

- (i) The amount of the Executive's annual incentive compensation shall be based on the Company's return on stockholder equity at the target levels established by the Committee. Annual incentive compensation shall be paid no later than _____.
- (ii) The calculation of return on stockholder equity shall be adjusted by the Committee to account for non-reoccurring factors, extraordinary gains or losses, changes in accounting, acquisitions and divestures of more than \$_____, stock issuances, stock dividends or stock buybacks in excess of ______ Shares.
- (iii) If the Executive ceases to be an employee of the Company prior to December 31, _____ by reason of death, disability, retirement, or involuntary termination due to the sale of an operating unit, the



Executive or his beneficiary shall be entitled to receive a pro-rata portion of the annual incentive compensation based on the period of time he was employed during ______. If the Executive's employment with the Company shall be terminated prior to December 31, _____ by reason of dismissal or voluntary resignation, no annual incentive compensation shall be paid.

- III. <u>Beneficiary</u>. In accordance with the Plan, the Executive, by completing and signing a "Designation of Beneficiary" shall have the right to designate a beneficiary to receive any payment of any Award (deferred or otherwise) remaining unpaid at Executive's death, all in the manner and to the extent set forth in this Agreement. The designation may be changed at any time by written notice delivered to the Committee or its representative. If no Designation of Beneficiary is made, any Award remaining unpaid, in whole or in part, at the time of death of the Executive, shall be paid to his legal representative.
- IV. <u>Withholding</u>. As to any payment of Shares or cash credited or paid pursuant to this agreement, the Committee may require that the Executive or his personal representative, as the case may be, agree to any procedure necessary to enable the Company to make adequate income tax withholdings.
- V. <u>Nonassignability</u>. Neither Executive nor any of his beneficiaries shall have any right or power to alienate, anticipate, commute, pledge, encumber or assign any right to receive any amount which hereafter may become or at any time be due hereunder, and no attempt to effect any such alienation, anticipation, commutation, pledge, encumbrance or assignment will be recognized, honored or accepted by the Company.
- VI. <u>Forfeiture</u>. So long as any portion of any Award (including amounts deferred), remain unpaid or undistributed, the Executive's right to receive such amount shall be forfeited if the Executive at any time during or after his employment with the Company shall do any act, or engage directly or indirectly (whether as owner, partner, officer, employee or otherwise) in the operation or management of any business which, in the judgment of the Company, is detrimental to or in competition with the Company or any of its subsidiaries or affiliates.

VII. Defined Terms. The terms used in this Agreement shall have the same meaning as the terms defined in the Plan.

IN WITNESS WHEREOF, the Company has caused this instrument to be executed by its duly authorized officer, and the Executive has hereunto affixed his hand and seal, the day and year first above written.

A. O. SMITH CORPORATION

By

Chairman and Chief Executive Officer

By _

Executive

LAW DEPARTMENT MAILING ADDRESS: P.O. BOX 245009, MILWAUKEE, WI 53224-9509 STREET ADDRESS: 11270 WEST PARK PLACE, MILWAUKEE, WI 53224

Writer's Direct Dial Number: (414) 359-4031 Facsimile Number: (414) 359-4143 E-Mail Address: jstern@aosmith.com

July 30, 2007

A. O. Smith Corporation 11270 West Park Place Milwaukee, WI 53224

Gentlemen:

I have acted as counsel for A. O. Smith Corporation (the "Company") in connection with the preparation of a Registration Statement on Form S-8 ("Registration Statement") to be filed by you with the Securities and Exchange Commission under the Securities Act of 1933, as amended ("Securities Act"), relating to 1,250,000 shares of Common Stock, \$1 par value per share ("Common Stock"), of the Company, which may be issued pursuant to the A. O. Smith Combined Incentive Compensation Plan (the "Plan").

In this connection, I have examined (a) signed copies of the Registration Statement; (b) the Restated Certificate of Incorporation and By-Laws, as amended to date, of the Company; (c) copies of resolutions of the Board of Directors and stockholders of the Company relating to the Plan; (d) the Plan and applicable forms of awards agreements under the Plan; and (e) such other proceedings, documents and records as I have deemed necessary for purposes of giving this opinion. In addition, I have made such investigations and have reviewed such other documents as I have deemed necessary or appropriate under the circumstances. With respect to all of the foregoing documents, I have assumed the genuineness of all signatures, the authenticity of all documents submitted to me as originals and the conformity to originals of all documents submitted to me as certified or reproduced copies.

Based upon the foregoing, I am of the opinion that:

1. The Company is a corporation duly organized and validly existing under the laws of the State of Delaware.

2. The Common Stock shares have been duly authorized and, when issued by the Company pursuant to the terms and conditions of the Plan, and as contemplated in the Registration Statement, will be validly issued, fully paid and nonassessable.

I hereby consent to the use of this opinion as an exhibit to the Registration Statement. In giving this consent, I do not admit that I am an expert within the meaning of Section 11 of the Securities Act or within the category of persons whose consent is required by Section 7 of said Act.

Very truly yours,

A. O. SMITH CORPORATION

/s/ James F. Stern

Executive Vice President, General Counsel and Secretary

Exhibit 23.1

Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to A. O. Smith Combined Incentive Compensation Plan of our reports dated February 1, 2007, with respect to the consolidated financial statements and schedule of A. O. Smith Corporation, A. O. Smith Corporation's management's assessment of the effectiveness of internal control over financial reporting, and the effectiveness of internal control over financial reporting of A. O. Smith Corporation, included in its Annual Report (Form 10-K) for the year ended December 31, 2006, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Milwaukee, Wisconsin July 18, 2007