

SCHEDULE 13G

Under the Securities Exchange Act of 1934

A.O. Smith Corporation
(Name of Issuer)

Common Stock, par value \$1
(Title of Class of Securities)

831865209
(CUSIP Number)

December 31, 2004
(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

Rule 13d-1(b) Rule 13d-1(c) Rule 13d-1(d)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1. NAME OF REPORTING PERSONS/
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only)

Franklin Resources, Inc. (13-2670991)

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b) X

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:

5. SOLE VOTING POWER

(See Item 4)

6. SHARED VOTING POWER

0

7. SOLE DISPOSITIVE POWER

(See Item 4)

8. SHARED DISPOSITIVE POWER

0

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,155,600

10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES []

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

5.5%

12. TYPE OF REPORTING PERSON

HC (See Item 4)

1. NAME OF REPORTING PERSONS/

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only)

Charles B. Johnson

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b) X

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

USA

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:

5. SOLE VOTING POWER

(See Item 4)

6. SHARED VOTING POWER

0

7. SOLE DISPOSITIVE POWER

(See Item 4)

8. SHARED DISPOSITIVE POWER

0

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,155,600

10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES []

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

5.5%

12. TYPE OF REPORTING PERSON

HC (See Item 4)

1. NAME OF REPORTING PERSONS/

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only)

Rupert H. Johnson, Jr.

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b) X

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

USA

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:

5. SOLE VOTING POWER

(See Item 4)

6. SHARED VOTING POWER

0

7. SOLE DISPOSITIVE POWER

(See Item 4)

8. SHARED DISPOSITIVE POWER

0

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,155,600

10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES []

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

5.5%

12. TYPE OF REPORTING PERSON

HC (See Item 4)

1. NAME OF REPORTING PERSONS/

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only)

Franklin Advisory Services, LLC

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b) X

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:

5. SOLE VOTING POWER

1,155,000 (See Item 4)

6. SHARED VOTING POWER

0

7. SOLE DISPOSITIVE POWER

1,155,600 (See Item 4)

8. SHARED DISPOSITIVE POWER

0

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,155,600

10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES []

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

5.5%

12. TYPE OF REPORTING PERSON

IA

Item 1.

(a) Name of Issuer:

A.O. Smith Corporation

(b) Address of Issuer's Principal Executive Offices:

P.O. Box 245008 Milwaukee, WI 53224-9508

Item 2.

(a) Name of Person Filing:

- (i): Franklin Resources, Inc.
- (ii): Charles B. Johnson
- (iii): Rupert H. Johnson, Jr.
- (iv): Franklin Advisory Services, LLC

(b) Address of Principal Business Office:

(i), (ii), (iii):
One Franklin Parkway
San Mateo, CA 94403

(iv):
One Parker Plaza, Sixteenth Floor
Fort Lee, NJ 07024

(c) Place of Organization or Citizenship:

- (i): Delaware
- (ii) and (iii): USA (iv): Delaware

(d) Title of Class of Securities:

Common Stock, par value \$1

(e) CUSIP Number:

831865209

Item 3. This statement is filed pursuant to Rule 13d-1(b) or 13d-2 and the persons filing are: Franklin Resources, Inc., a parent holding company in accordance with Section 240.13d-1(b)1(ii)(G); Charles B. Johnson, a control person in accordance with Section 240.13d-1(b)1(ii)(G); Rupert H. Johnson, Jr., a control person in accordance with Section 240.13d-1(b)1(ii)(G); and Franklin Advisory Services, LLC, an investment adviser in accordance with Section 240.13d-1(b)1(ii)(E). (Note: See Item 4)

Item 4. Ownership

The securities reported on herein are beneficially owned by one or more open or closed-end investment companies or other managed accounts which are advised by direct and indirect investment advisory subsidiaries, including any subsidiary(ies) set forth in Item 7 below, (the "Adviser Subsidiaries") of Franklin Resources, Inc. ("FRI"). Such advisory contracts grant to such Adviser Subsidiaries all investment and/or voting power over the securities owned by such advisory clients. Therefore, such Adviser Subsidiaries may be deemed to be, for purposes of Rule 13d-3 under the Securities Exchange Act of 1934, as amended (the "1934 Act") the beneficial owner of the securities covered by this statement.

Beneficial ownership by investment advisory subsidiaries and other affiliates of FRI is being reported in conformity with the guidelines articulated by the SEC staff in Release No. 34-39538 (January 12, 1998) relating to organizations, such as FRI, where related entities exercise voting and investment powers over the securities being reported independently from each other. The voting and investment powers held by Franklin Mutual Advisers, LLC ("FMA"), formerly Franklin Mutual Advisers, Inc., an indirect wholly owned investment advisory subsidiary of FRI, are exercised independently from FRI and from all other investment advisor subsidiaries of FRI (FRI, its affiliates and investment advisor subsidiaries other than FMA are collectively referred to herein as "FRI

affiliates"). Furthermore, FMA and FRI internal policies and procedures establish informational barriers that prevent the flow between FMA and the FRI affiliates of information that relates to the voting and investment powers over the securities owned by their respective advisory clients. Consequently, FMA and the FRI affiliates are each reporting the securities over which they hold investment and voting power separately from each other.

Charles B. Johnson and Rupert H. Johnson, Jr. (the "Principal Shareholders") each own in excess of 10% of the outstanding Common Stock of FRI and are the principal shareholders of FRI. FRI and the Principal Shareholders may be deemed to be, for purposes of Rule 13d-3 under the 1934 Act, the beneficial owner of securities held by persons and entities advised by FRI subsidiaries. FRI, the Principal Shareholders and each of the Adviser Subsidiaries disclaim any economic interest or beneficial ownership in any of the securities covered by this statement.

FRI, the Principal Shareholders, and each of the Adviser Subsidiaries are of the view that they are not acting as a "group" for purposes of Section 13(d) under the 1934 Act and that they are not otherwise required to attribute to each other the "beneficial ownership" of securities held by any of them or by any persons or entities advised by FRI subsidiaries.

(a) Amount Beneficially Owned:

1,155,600

(b) Percent of Class:

5.5%

(c) Number of Shares as to which the person has:

(i) Sole power to vote or to direct the vote

Franklin Resources, Inc.:	0	
Charles B. Johnson:	0	
Rupert H. Johnson, Jr.:	0	
Franklin Advisory Services, LLC:		1,155,000

(ii) Shared power to vote or to direct the vote:

0

(iii) Sole power to dispose or to direct the disposition of

Franklin Resources, Inc.:	0	
Charles B. Johnson:	0	
Rupert H. Johnson, Jr.:	0	
Franklin Advisory Services, LLC:		1,155,600

(iv) Shared power to dispose or to direct the disposition of:

0

Item 5. Ownership of Five Percent or Less of a Class If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following [].

Not Applicable

Item 6. Ownership of More than Five Percent on Behalf of Another Person

The clients of the Adviser Subsidiaries, including investment companies registered under the Investment Company Act of 1940 and other managed accounts, have the right to receive or power to direct the receipt of dividends from, as well as the proceeds from the sale of, such securities reported on in this statement.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person

Franklin Advisory Services, LLC	Item 3 classification: 3(e)
(See also Item 4)	

Item 8. Identification and Classification of Members of the Group

Not Applicable (See also Item 4)

Item 9. Notice of Dissolution of Group

Not Applicable

Item 10. Certification

By signing below we certify that, to the best of our knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purposes or effect.

This report shall not be construed as an admission by the persons filing the report that they are the beneficial owner of any securities covered by this report.

After reasonable inquiry and to the best of our knowledge and belief, we certify that the information set forth in this statement is true, complete and correct.

Dated: February 11, 2005

Franklin Resources, Inc.
Charles B. Johnson
Rupert H. Johnson, Jr.
Franklin Advisory Services, LLC

By: /s/BARBARA J. GREEN

Barbara J. Green
Vice President, Deputy General Counsel,
and Secretary of Franklin Resources, Inc.

Attorney-in-Fact for Charles B. Johnson pursuant to Power of Attorney
attached to this Schedule 13G

Attorney-in-Fact for Rupert H. Johnson, Jr. pursuant to Power of Attorney
attached to this Schedule 13G

Secretary of Franklin/Templeton Distributors, Inc., the Managing Member of
Franklin Advisory Services, LLC

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, the undersigned hereby agree to the joint filing with each other of the attached statement on Schedule 13G and to all amendments to such statement and that such statement and all amendments to such statement are made on behalf of each of them.

IN WITNESS WHEREOF, the undersigned hereby execute this agreement on February 11, 2005.

Franklin Resources, Inc.
Charles B. Johnson
Rupert H. Johnson, Jr.
Franklin Advisory Services, LLC

By: /s/BARBARA J. GREEN

Barbara J. Green
Vice President, Deputy General Counsel,
and Secretary of Franklin Resources, Inc.

Attorney-in-Fact for Charles B. Johnson pursuant to Power of Attorney
attached to this Schedule 13G

Attorney-in-Fact for Rupert H. Johnson, Jr. pursuant to Power of Attorney
attached to this Schedule 13G

POWER OF ATTORNEY

CHARLES B. JOHNSON hereby appoints BARBARA J. GREEN his true and lawful attorney-in-fact and agent to execute and file with the Securities and Exchange Commission any Schedule 13G or 13D, any amendments thereto or any related documentation which may be required to be filed in his individual capacity as a result of his position as an officer, director or shareholder of Franklin Resources, Inc. and, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing which he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, may lawfully do or cause to be done by virtue hereof.

Date: 9-11-03 /s/Charles B. Johnson
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Charles B. Johnson

POWER OF ATTORNEY

RUPERT H. JOHNSON hereby appoints BARBARA J. GREEN his true and lawful attorney-in-fact and agent to execute and file with the Securities and Exchange Commission any Schedule 13G or 13D, any amendments thereto or any related documentation which may be required to be filed in his individual capacity as a result of his position as an officer, director or shareholder of Franklin Resources, Inc. and, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing which he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, may lawfully do or cause to be done by virtue hereof.

Date: Sept 4, 2003 /s/Rupert H. Johnson, Jr.
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Rupert H. Johnson

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