UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 11-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2007

OR

□ TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to ____

Commission file number 1-475

A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

A. O. Smith Profit Sharing Retirement Plan

B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

A. O. Smith Corporation

11270 West Park Place Milwaukee, WI 53224

REQUIRED INFORMATION

- 1. Not Applicable.
- 2. Not Applicable.
- 3. Not Applicable.
- 4. The A. O. Smith Profit Sharing Retirement Plan (the "Plan") is subject to the requirements of the Employee Retirement Income Security Act of 1974 ("ERISA"). Attached hereto is a copy of the most recent financial statements and schedules of the Plan prepared in accordance with the financial reporting requirements of ERISA.

Exhibits

- 23.1 Consent of Independent Auditors
- 32 Certification

AUDITED FINANCIAL STATEMENTS

Years Ended December 31, 2007 and 2006

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REPORT OF INDEPENDENT PUBLIC ACCOUNTING FIRM

Benefits Committee A.O. Smith Profit Sharing Retirement Plan Milwaukee, Wisconsin

We have audited the accompanying statements of net assets available for benefits of the A.O. Smith Profit Sharing Retirement Plan as of December 31, 2007 and 2006, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements, referred to above, present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2007 and 2006, and the changes in its net assets available for benefits for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental Schedule of Assets Held for Investment – December 31, 2006, is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. This supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ REILLY, PENNER & BENTON LLP

May 27, 2008 Milwaukee, Wisconsin

A.O. SMITH PROFIT SHARING RETIREMENT PLAN

Milwaukee, Wisconsin

Statements of Net Assets Available for Benefits December 31, 2007 and 2006

200	7	2006
Assets:		
Investments in Master Trust:		
Investment options at fair value \$ 256,54	1,279	\$ 238,608,751
Participant loans receivable 2,68	2,976	2,474,783
Total investments 259,22	4,255	241,083,534
Receivables:		
Company contributions 4,65	9,072	2,622,864
Due from brokers for securities transactions (Net)	3,815	14,108
Accrued Interest	2,393	29,344
Total receivables 4,65	5,280	2,666,316
Net assets reflecting all investments at fair value263,91	9,535	243,749,850
Adjustment from fair value to contract value for fully benefit-responsive investment contracts	5,036	1,097,975
Net assets available for benefits 265,46	4,571	\$ 244,847,825

The accompanying notes to the financial statements are an integral part of this statement.

Statements of Changes in Net Assets Available for Benefits Years Ended December 31, 2007 and 2006

	2007	2006
Increases:		
Net income from the Master Trust:		
Investments	22,108,057	\$ 22,655,737
Interest income from participant loans	233,951	137,730
Net income	22,342,008	22,793,467
Contributions:		
Company	4,649,045	2,622,864
Participants	7,696,444	6,886,184
Rollovers	607,967	456,004
Total contributions	12,953,456	9,965,052
Total increases	35,295,464	32,758,519
Decreases:		
Benefit and withdrawal payments	23,846,412	20,613,905
Change in net assets before transfers	11,449,052	12,144,614
Transfers from other plans	9,227,480	105,158
Transfers to other plans	(59,786)	—
Change in net assets available for benefits	20,616,746	12,249,772
Net assets available for benefits:		
Beginning of year	244,847,825	232,598,053
End of year	\$265,464,571	\$ 244,847,825

The accompanying notes to the financial statements are an integral part of this statement.

Notes to Financial Statements December 31, 2007 and 2006

1. Basis of Presentation and Significant Accounting Policies

<u>General</u>

The A.O. Smith Profit Sharing Retirement Plan was established in 1956 to cover salaried or commissioned employees of the A. O. Smith Corporation, its subsidiaries and affiliates. Employees are eligible to participate in the Plan if they are scheduled to complete 1,000 hours of service in a Plan year. Employees elect to participate by designating a portion of their salary to be contributed to an account maintained on behalf of the participant. Participants direct the investment of their contributions into various investment options offered by the Plan (see Note 2).

Participant Loans

Participants may borrow from their fund accounts a minimum of \$1,000 up to a maximum of \$50,000 or 50 percent of their account balance, whichever is less. The loans are secured by the balance in the participant's account and bear interest at rates which are commensurate with local prevailing rates as determined by the Plan's Trustee.

Investment Valuation

All of the Plan's assets are held in the A. O. Smith Profit Sharing Retirement Master Trust (Master Trust) (Note 2) which are recorded at fair value. The Financial Statements of the Master trust are presented separately and are incorporated by reference to the Financial Statements of this plan.

Contributions

The Plan is a defined contribution plan to which participants may make contributions of not less than 1% or more than 25% of their compensation. The Plan provides for all participant contributions to be made with tax-deferred dollars under Section 401(k) of the Internal Revenue Code. These contributions are excluded from the participant's current wages for federal income tax purposes. The Internal Revenue Code has set a maximum of \$15,500 and \$15,000 for tax-deferred contributions that may be excluded for any individual participant in 2007 and 2006, respectively. The Internal Revenue Code also allows additional catch-up contributions for participants over age fifty. The maximum additional contribution allowed was \$5,000 in 2007 and 2006, respectively. No federal income tax is paid on the tax-deferred contributions and growth thereon until the participant makes withdrawals from the Plan.

Contributions from participants are recorded when A. O. Smith Corporation (the Company) makes payroll deductions from Plan participants. Contributions from the Company are accrued in the period in which they become obligations of the Company in accordance with terms of the Plan.

For each \$1.00 of 401(k) Tax-Deferred contributions, up to 6% of a participant's salary, the Company guarantees a contribution of \$.35. Additional Company contributions in excess of \$.35 will be based on the Company's return on net worth. The additional Company matching contribution amount is \$.05 times the return on net worth between 5% and 10%, plus \$.10 times the return on net worth in excess of 10% up to a maximum of 18%. Therefore, the guaranteed and additional contributions can combine for a maximum Company contribution of \$1.40 of participant contributions up to 6% of salary.

Transfers From Other Plans

In 2007, the Plan acquired the assets held by the American Water Heater Salary Savings Plan. The assets transferred into the Plan were \$9,145,206.

Vesting

Participants of the Plan are 0% vested in employer contributions with less than two years of participation, 40% vested after two years, 60% after three years, 80% after four years and fully vested after five years of participation. Participants are always fully vested in their own contributions.

Notes to Financial Statements December 31, 2007 and 2006 (Continued)

1. Basis of Presentation and Significant Accounting Policies (Continued)

Administrative Expense

Administrative expenses are the responsibility of the Plan and are part of the net income from the master trust. Administrative expenses totaled \$117,887 and \$88,988 for the years ended December 31, 2007 and 2006, respectively.

Participant Account Provisions

A separate account is maintained for each participant. The separate account balances are adjusted periodically as follows:

- a. Semi-monthly for participant's contributions.
- b. Annually for Company contributions.
- c. Daily for a proportionate share of increases and decreases in the fair value of Plan assets.
- d. The accounts are periodically adjusted for forfeitures, which are reallocated to participants in the same manner as if they were a Company matching contribution for the Plan year. Forfeiture allocations for 2007 and 2006 amounted to \$23,234 and \$19,149, respectively.
- e. Daily for benefit and withdrawal payments which consist of the following:
 - i. Upon retirement, death, disability, or termination of employment resulting from permanent reduction of personnel, an employee may withdraw any amount or the entire account balance for any reason. At age 70^{-1/2}, an account distribution election must be made.
 - ii. Upon termination of employment for other reasons, the balance in the separate account (reduced for non-vested Company contributions and growth thereon based on years of service) may be paid in a lump sum.
 - iii. An active participant age 59^{-1/2} or older and employed for five years may withdraw any amount up to the balance in the separate account. The balance in the separate account is paid to the participant in a lump sum.
 - iv. A participant may withdraw all or any portion of the principal balance attributable to after-tax contributions and earnings and rollover contributions and earnings. All or any portion of the balance attributable to Company contributions and earnings may also be withdrawn if the participant has five full years of employment with the Company.
 - A participant may withdraw at any time any amount attributable to participant contributions and growth to purchase, prevent eviction from or foreclosure on, a principal residence or to pay certain expenses (namely post-secondary education and unreimbursed medical expenses). Withdrawals may not include earnings on 401(k) contributions posted to a participant's account after 1988.
 - vi. No lump sum cash distribution in excess of \$5,000 will be made without the consent of the participant.
- f. Daily for investment allocation changes made by participants.
- g. Participants should refer to the Plan document for a complete description of the Plan's provisions.

Payment of Benefits

Benefits are recorded when paid. As of 12/31/07, distributions of \$52,457 were requested by participants, but had not yet been paid from the Plan.

Notes to Financial Statements December 31, 2007 and 2006 (Continued)

2. A. O. Smith Profit Sharing Retirement Master Trust

The Plan assets are held in the A. O. Smith Profit Sharing Retirement Master Trust at the Marshall and Ilsley Trust Company. The Plan offers sixteen investment vehicles in which participants may invest their account balances. Shares of mutual funds are valued at the net asset value of shares held at year end. Shares of common/collective trust funds are valued at the redemption price established by the Trustee at year end. The fair value of the guaranteed investment contracts are calculated by discounting the related cash flows based on current yields of similar instruments with comparable durations. Participant loans receivable are valued at cost which approximates fair value.

As described in Financial Accounting Standards Board Staff Position, FSP AAG INV-1 and SOP 94-4-1, Reporting of Fully Benefit-Responsive Investment Contracts Held by Certain Investment Companies Subject to the AICPA Investment Company Guide and Defined-Contribution Health and Welfare and Pension Plans (the FSP), investment contracts held by a defined-contribution plan are required to be reported at fair value. However, contract value is the relevant measurement attribute for that portion of the net assets available for benefits of a defined contribution plan attributable to fully benefit-responsive investment contracts because contract value is the amount participants would receive if they were to initiate permitted transactions under the terms of the plan. As required by the FSP, the Statement of Net Assets Available for Benefits presents the fair value of the investment contracts as well as the adjustment of the fully benefit-responsive investment contracts from fair value to contract value. The Statement of Changes in Net Assets Available for Benefits is prepared on a contract value basis.

The amount of Master Trust assets, income and change in value which is allocated to the Plan is determined by the ratio of participant account balances in the Plan to the total participant account balances of all participating plans. The defined contribution plans participating in the Master Trust at December 31, 2007, are the A. O. Smith Profit Sharing Retirement Plan, the A. O. Smith Corporation Savings Plan, the A. O. Smith Retirement Savings Plan and the APCOM, Inc. Retirement and Savings Plan. At December 31, 2007, and 2006, the Plan was allocated 83.170% and 82.176%, respectively, of the Master Trust assets.

Significant information related to the investments in the Master Trust as of and for the year ended December 31, 2007, is as follows:

	December 31, 2007 Balance	2007 Income	2007 Change in Fair Value
a. Register Investment Company Mutual Funds:			
American EuroPacific Growth Fund	\$ 26,019,326	\$ 4,293,912	\$ 3,289,076
First American Equity Income Fund	15,802,517	1,348,470	(4,711,205)
American Growth Fund of America	5,719,675	311,877	5,719,675
Fidelity Aggressive Equity Portfolio	—	(13,152)	(52,242,987)
Vanguard Institutional Index Trust Fund	18,838,913	1,041,981	(4,028,891)
Evergreen Core Bond Fund	7,761,157	375,033	(1,509,808)
American Balanced Fund	17,965,255	1,705,563	666,414
Fiduciary Common Stock Fund	1,670,308	(139,698)	1,670,308
Munder Midcap Core Growth Fund	53,365,811	10,118,208	53,365,811
Marshall Mid Cap Value Fund	14,609,151	731,086	(8,977,923)
Subtotal	161,752,113	19,773,280	(6,759,530)

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b. Common/Collective Trusts:			
A.O. Smith Stock Fund	2,716,442	(100,420)	(596,104)
M&I Target Retirement – 2010	11,647,396	296,007	11,647,396
M&I Target Retirement – 2020	8,532,052	(17,135)	8,532,052
M&I Target Retirement – 2030	5,287,950	111,588	5,287,950
M&I Target Retirement – 2040	626,749	1,878	626,749
M&I Target Retirement – 2050	366,167	11,679	366,167
A.O. Smith Stable Asset Income Fund	118,226,108	5,376,348	(446,162)
Subtotal	147,402,864	5,679,945	25,418,048
c. Participant Loans Receivable	4,376,728	357,137	197,761
d. Cash	6,172	—	(29,903)
Total	\$313,537,877	\$25,810,362	\$18,826,376

Significant information related to the investments in the Master Trust as of and for the year ended December 31, 2006:

	December 31, 2006 Balance	2006 Income	2006 Change in Fair Value
a. Register Investment Company Mutual Funds:			
American EuroPacific Growth Fund	\$ 22,730,250	\$ 4,138,937	\$ 5,132,627
First American Equity Income Fund	20,513,722	3,131,475	5,180,333
Fidelity Aggressive Equity Portfolio	52,242,987	6,260,485	(3,332,977)
Vanguard Institutional Index Trust Fund	22,867,804	2,767,147	4,369,697
Evergreen Core Bond Fund	9,270,965	384,733	644,413
American Balanced Fund	17,298,841	1,389,836	1,164,048
Marshall Mid Cap Value Fund	23,587,074	3,146,627	(2,582,810)
Subtotal	168,511,643	21,219,240	10,575,331
b. Common/Collective Trusts:			
A.O. Smith Stock Fund	3,312,546	272,892	302,512
A.O. Smith Stable Asset Income Fund	118,672,270	5,242,753	2,084,737
Subtotal	121,984,816	5,515,645	2,387,249
c. Participant Loans Receivable	4,178,967	227,653	166,152
d. Cash	36,075	—	24,070
Total	\$294,711,501	\$26,962,538	\$ 13,152,802

A.O. SMITH PROFIT SHARING RETIREMENT PLAN

Milwaukee, Wisconsin

Notes to Financial Statements December 31, 2007 and 2006 (Continued)

3. Investments

Investments held by the Plan, that represents 5% or more of the Plan's net assets are as follows:

	December 31,		
	2007	2006	
Fidelity Aggressive Equity Fund, 0 and 50,491.762 shares, respectively	\$ —	\$48,143,552	
First American Equity Income Fund, 970,106.111 and 1,044,675.535 shares, respectively	14,318,766	15,837,281	
Vanguard Institutional Index Fund, 119,275.337 and 153,500.826 shares, respectively	15,999,594	19,892,172	
A.O. Smith Stable Asset Income Fund, 4,278,416.315 and 4,298,216.464 shares,			
respectively	95,164,609	91,221,250	
American Balanced Fund, 859,426.122 and 841,429.663 shares, respectively	16,604,113	16,012,406	
Marshall Mid Cap Value Fund, 1,019,591.695 and 1,257,725.649 shares, respectively	13,509,590	19,092,275	
American EuroPac Growth Fund, 480,177.815 and 434,183.643 shares, respectively	24,426,645	20,215,590	
Munder Mid Cap Core Growth Fund, 1,689,252.092 and 0 shares, respectively	51,285,694	—	

4. A.O. Smith Stable Asset Income Fund

The master trust in which the plan's assets are invested owns shares of the A.O. Smith Stable Asset Income Fund (the Fund). The Fund owns shares of two collective investment funds which hold guaranteed investment contracts. Information pertaining to these two funds for the year ended December 31, 2007, is as follows:

	Average Yield	Crediting Interest Rate	Investments at Contract Value	Investments at Fair Value	Adjustment to Contract Value
M&I Stable Principal Fund	4.58%	4.66%	46,649,691	45,250,200	1,399,491
Wells Fargo Stable Return Fund G	4.50%	5.09%	48,514,918	48,369,373	145,545

Information pertaining to the two funds for the year ended December 31, 2006, is as follows:

	Average Yield	Crediting Interest Rate	Investments at Fair Value	Wrapper Contracts at Fair Value	Adjustment to Contract Value
M&I Stable Principal Fund	4.47%	4.63%	44,332,707	44,780,512	447,805
Wells Fargo Stable Return Fund G	5.24%	4.96%	45,790,568	46,440,738	650,170

Notes to Financial Statements December 31, 2007 and 2006 (Continued)

5. Income Tax Status

The Plan obtained its latest determination letter on October 21, 1999, in which the Internal Revenue Service stated the Plan as then designed, was in compliance with the applicable requirements of the Internal Revenue Code. The Plan administrator and the Plan's tax counsel believe that the Plan is currently designed and being operated in compliance with the applicable requirements of the Internal Revenue Code. Therefore, no provision for income taxes has been included in the Plan's financial statements.

6. Plan Termination

While the Company has not expressed any intent to terminate the Plan, it is free to do so at any time. In the event of termination, each participant automatically becomes vested to the extent of the balance in his separate account.

7. Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts in the financial statements. Actual results could differ from those estimates.

8. Risks and Uncertainties

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statements of net assets available for benefits.

EIN 39-0619790, Plan 018 Schedule H, line 4i - Schedule of Assets Held for Investment

December 31, 2007

	(c)		(e)
(b)	Description of	(d)	Current
Identity of Issue	Investment	Cost	Value
Participant Loans	4% - 9.25%	\$—	\$2,682,976
		(b) Description of Identity of Issue Investment	(b) Description of (d) Identity of Issue Investment Cost

CONSENT OF REILLY, PENNER & BENTON LLP

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-05799) pertaining to the A. O. Smith Profit Sharing Retirement Plan (the Plan) of our report dated May 27, 2008 with respect to the financial statements and schedules of the Plan included in this Annual Report (Form 11-K) for the year ended December 31, 2007.

Milwaukee, Wisconsin May 27, 2008 /s/ REILLY, PENNER & BENTON LLP

CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002 WITH RESPECT TO THE ANNUAL REPORT ON FORM 11-K FOR THE YEAR ENDED DECEMBER 31, 2007 PERTAINING TO THE A. O. SMITH PROFIT SHARING RETIREMENT PLAN

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, the undersigned certifies that to the best of his knowledge:

- (1) the Annual Report on Form 11-K pertaining to the A. O. Smith Profit Sharing Retirement Plan (the "Plan") for the year ended December 31, 2007 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities and Exchange Act of 1934; and
- (2) the information contained in the Report fairly presents, in all material respect, the financial condition and results of the Plan.

Dated: May 27, 2008

/s/ Duane R. Carlson

Duane R. Carlson Manager, U.S. Benefits