

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

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

For the fiscal year ended December 31, 1998

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

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23.1 Consent of Independent Auditors

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the Plan) have duly caused this annual report to be signed by the undersigned thereunto duly authorized.

A. O. Smith Profit Sharing Retirement Plan

Date: 06/25/1999

By: /s/Duane R. Carlson
Duane R. Carlson
Manager Pension and Savings Plan

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Supplementary Information

A schedule of party-in-interest transactions has not been presented because there were no party-in-interest transactions which are prohibited by ERISA Section 406 and for which there is no statutory or administrative exemption.

INDEPENDENT AUDITORS' REPORT

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, 1998 and 1997, and the related statement 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 generally accepted auditing standards. 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, as well as 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, of the A. O. Smith Profit Sharing Retirement Plan as of December 31, 1998 and 1997, and for the years then ended present fairly, in all material respects, the net assets available for benefits of the A. O. Smith Profit Sharing Retirement Plan as of December 31, 1998 and 1997, and the changes in its net assets available for benefits for the years then ended in conformity with generally accepted accounting principles.

June 24, 1999
Milwaukee, Wisconsin

REILLY, PENNER & BENTON LLP

A. O. SMITH PROFIT SHARING RETIREMENT PLAN
STATEMENT OF NET ASSETS AVAILABLE FOR BENEFITS

	December 31,	
Assets:	1998	1997
Investment in A. O. Smith Master Trust at fair value (Notes 2 and 3)	\$ 174,643,787	\$ 153,090,013
Participant loans at estimated fair value	3,113,126	2,518,338
Total	177,756,913	155,608,351
Receivables:		
Interest income	19,494	94,200
Company contribution	3,495,846	3,512,891
Participant contribution	173,362	-
Total receivables	3,688,702	3,607,091
Total Assets	181,445,615	159,215,442
Liabilities:		
Due to broker for securities purchased	221,370	76,073
Net assets available for benefits	\$ 181,224,245	\$ 159,139,369

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

A. O. SMITH PROFIT SHARING RETIREMENT PLAN
STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

	Years ended December 31	
	1998	1997
Increases:		
Investment in A. O. Smith Master Trust at fair value:		
Net investment income	\$ 1,260,859	\$ 2,483,372
Realized gain on investment transactions	20,939,144	33,671,864
Unrealized appreciation (depreciation) on investments	4,472,555	(2,049,251)
Total	26,672,558	34,105,985
Interest income from participant loans	182,271	290,009
Total investment income	26,854,829	34,395,994
Contributions:		
Company	3,495,846	3,512,891
Participants	5,096,618	5,596,596
Rollovers	255,310	1,286,032
Total contributions	8,847,774	10,395,519
Total increases	35,702,603	44,791,513
Decreases:		
Benefit and withdrawal payments	14,102,221	14,249,182
Net increase before transfers	21,600,382	30,542,331
Transfers from (to) other plans	484,494	(53,337,450)
Increase (decrease) in net assets available for benefits	22,084,876	(22,795,119)
Net assets available for benefits:		
Beginning of the year	159,139,369	181,934,488
End of the year	\$ 181,224,245	\$ 159,139,369

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

A. O. SMITH PROFIT SHARING RETIREMENT PLAN
NOTES TO FINANCIAL STATEMENTS
December 31, 1998 and 1997

1. Basis of presentation and significant accounting policies

General - The A. O. Smith Profit Sharing Retirement Plan was established in 1956 to cover salaried or commissioned nonunion 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.

Investment valuation - All of the Plan's investments are invested in the A. O. Smith Profit Sharing Retirement Master Trust (Master Trust) (Note 2) which are valued at their market price. The financial statements of the Master Trust are presented separately and are incorporated by reference to the financial statements of this Plan. The investment in the A. O. Smith Stable Asset Income Fund is valued at the redemption price established by the trustee. Participant loans receivable are valued at cost which approximates fair value.

Contributions and benefit and withdrawal payments - The Plan is a defined contribution plan to which participants may make contributions of not less than 1% or more than 16% 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 \$10,000 and \$9,500 for tax-deferred contributions that may be excluded for any individual participant in 1998 and 1997, respectively. No federal income tax is paid on the tax-deferred contributions and growth thereon until the participant withdraws them 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.

1. Basis of presentation and significant accounting policies (continued)

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.

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.
- 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. One withdrawal of this type is allowed per calendar year, up to age 70 1/2. At 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 nonvested 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 may withdraw 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.

1. Basis of presentation of significant accounting policies (continued)

v. 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.

Participants should refer to the Plan document for a more complete description of the Plan's provisions.

Realized gains and losses - The realized gains and losses recognized on the financial statements are calculated by comparing the sales proceeds to the original cost of the investment as prescribed by generally accepted accounting principles. The realized gains and losses recognized in the Form 5500 (annual federal filing) are recalculated by comparing the sales proceeds to the value of the investment at the beginning of the plan year. If the investment is purchased in the same year as the sale, the gain or loss is calculated by comparing the sales proceeds to the purchase price.

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 eight investment vehicles in which participants may invest their account balances. 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, 1998, are the A. O. Smith Profit Sharing Retirement Plan and the A. O. Smith Corporation Savings Plan.

2. A. O. Smith Profit Sharing Retirement Master Trust (continued)

Significant information related to the investments in the Master Trust as of and for the year ended December 31, 1998, is as follows:

	December 31, 1998 Balance	1998 Income	1998 Change in Value
	-----	-----	-----
a. Registered Investment Company Mutual Funds:			
American EuroPacific Growth Fund	\$ 3,143,960	\$ 483,112	\$ (164,779)
* Firststar Growth and Income Fund	24,928,210	4,805,025	3,724,128
Fidelity Aggressive Equity Portfolio	54,809,424	13,350,136	6,005,498
Vanguard Institutional Index Trust Fund	22,594,131	4,849,448	6,801,280
Vanguard Fixed Income Short-term Corp. Fund	3,934,366	217,164	1,030,319
American Balanced Fund	9,752,324	954,398	917,960
	-----	-----	-----
Subtotal	119,162,415	24,659,283	18,314,406
	-----	-----	-----
b. Common/Collective Trusts:			
A. O. Smith Stock Fund	3,204,849	(553,467)	740,063
A. O. Smith Stable Asset Income Fund	60,173,052	3,050,555	29,558,769
	-----	-----	-----
Subtotal	63,377,901	2,497,088	30,298,832
	-----	-----	-----
c. Short-term, High quality liquid securities:			
A. O. Smith Income Fund	-	269,178	(21,267,664)
	-----	-----	-----
d. Cash	(66,066)	-	(66,066)
	-----	-----	-----
Total	\$ 182,474,250	\$ 27,425,549	\$ 27,279,508
	=====	=====	=====

* Portico Growth & Income Fund became Firststar Growth & Income Fund during 1998.

2. A. O. Smith Profit Sharing Retirement Master Trust (continued)

Significant information related to the investments in the Master Trust as of and for the year ended December 31, 1997, is as follows:

	December 31, 1997 Balance	1997 Income	1997 Change in Value
	-----	-----	-----
a. Registered Investment Company Mutual Funds:			
American EuroPacific Growth Fund	\$ 3,308,738	\$ 573,595	\$ (3,791,930)
Firststar Growth and Income Fund	21,204,082	6,717,437	(8,843,942)
Fidelity Aggressive Equity Portfolio	48,803,925	16,690,296	(47,408,098)
Vanguard Institutional Index Trust Fund	15,792,851	4,887,792	(5,881,172)
Vanguard Fixed Income Short- term Corp. Fund	2,904,048	258,695	(4,536,895)
American Balanced Fund	8,834,364	1,938,404	(7,312,409)
	-----	-----	-----
Subtotal	100,848,008	31,066,219	(77,774,446)
	-----	-----	-----
b. Common/Collective Trusts:			
A. O. Smith Stock Fund	2,464,786	698,209	1,415,710
A. O. Smith Stable Asset Income Fund	30,614,283	1,957,453	(19,415,303)
	-----	-----	-----
Subtotal	33,079,069	2,655,662	(17,999,593)
	-----	-----	-----
c. Short-term, High quality liquid securities:			
A. O. Smith Income Fund	21,267,665	1,554,005	(41,034,025)
	-----	-----	-----
d. Cash			
	18,200	-	18,200
	-----	-----	-----
Total	\$155,212,942	\$35,275,886	\$ (136,789,864)
	=====	=====	=====

At December 31, 1998 and 1997, the Plan was allocated 95.701% and 98.632%, respectively, of the Master Trust assets.

3. Investments

Investments held by the Plan at December 31, are as follows:

	1998		1997	
	Cost	Fair Value	Cost	Fair Value
Investments:				
A. O. Smith Profit Sharing Retirement Master Trust:				
Cash	\$ (49,218)	\$ (49,218)	\$ 15,086	\$ 15,086
American EuroPacific Growth Fund	3,006,103	3,127,368	3,349,632	3,297,575
A. O. Smith Stock Fund	3,332,591	3,204,849	2,088,401	2,464,786
A. O. Smith Income Fund	-	-	19,703,210	19,703,210 (1)
* Portico Growth and Income Fund	20,395,692	24,647,005 (1)	16,158,520	21,063,483 (1)
Fidelity Aggressive Equity Portfolio	33,768,100	53,470,170 (1)	32,663,677	48,600,401 (1)
Vanguard Institutional Index Trust Fund	16,256,965	20,901,926 (1)	12,342,664	15,704,496 (1)
Vanguard Fixed Income Short-Term Corp. Fund	3,883,144	3,890,406	2,880,398	2,900,137
American Balanced Fund	8,848,245	8,955,555 (1)	8,465,120	8,780,279 (1)
A. O. Smith Stable Asset Income Fund	53,791,788	56,495,726 (1)	28,485,483	30,560,560 (1)
Total	\$ 143,233,410	\$ 174,643,787	\$ 126,152,191	\$ 153,090,013

(1) - Investments representing at least 5% of the net assets available for benefits.

* Portico Growth & Income became Firststar Growth & Income during 1998.

3. Investments (continued)

During 1998 and 1997, the Plan's investments appreciated (depreciated) in fair value by \$4,472,555 and (\$2,049,251), respectively as follows:

	1998	1997
	-----	-----
Investments:		
A. O. Smith Profit Sharing Retirement Master Trust:		
American EuroPacific Growth Fund	\$ 173,322	\$ (301,107)
A. O. Smith Stock Fund	(504,126)	313,180
A. O. Smith Income Fund	-	-
* Portico Growth and Income Fund	(653,650)	1,778,512
Fidelity Aggressive Equity Portfolio	3,765,346	(4,419,766)
Vanguard Institutional Index Trust Fund	1,283,129	858,203
Vanguard Fixed Income Short-Term Corp. Fund	(12,477)	5,461
American Balanced Fund	(207,849)	(14,611)
A. O. Smith Stable Asset Income Fund	628,860	(269,123)
	-----	-----
Total	\$ 4,472,555	\$ (2,049,251)
	=====	=====

* Portico Growth & Income became Firststar Growth & Income during 1998.

3. Investments (continued)

The Plan provides that contributions to the Plan will be invested in certain individual programs as directed by each participant. Amounts included in net assets and changes in net assets in the accompanying financial statements by investment programs at December 31, are as follows:

	1998			
	Investment at Fair Value	Investment Income	Contributions	Benefits Paid to Participants
Cash	\$ (49,218)	\$ -	\$ -	\$ -
American EuroPacific Growth Fund	3,127,368	482,423	189,683	253,817
A. O. Smith Stock Fund	3,204,849	(553,467)	277,223	73,751
Vanguard Fixed Income Short-term Corp. Fund	3,890,406	216,358	167,740	193,184
Fidelity Aggressive Equity Portfolio	53,470,170	13,171,411	2,543,480	3,888,932
A. O. Smith Stable Asset Income Fund	56,495,726	2,921,622	1,862,533	5,968,503
Vanguard Institutional Index Trust Fund	20,901,926	4,647,343	1,003,064	1,461,287
A. O. Smith Income Fund	-	280,150	1,104,132	652,870
American Balanced Fund	8,955,555	920,373	484,094	227,852
* Firststar Growth and Income Fund	24,647,005	4,768,616	1,215,825	1,382,025
Total	\$ 174,643,787	\$ 26,854,829	\$ 8,847,774	\$ 14,102,221

* Portico Growth & Income Fund became Firststar Growth & Income Fund during 1998.

3. Investments (continued)

	1997			
	Investment at Fair Value	Investment Income	Contributions	Benefits Paid to Participants
Cash	\$ 15,086	\$ -	\$ -	\$ -
American EuroPacific Growth Fund	3,297,575	557,578	244,934	326,806
A. O. Smith Stock Fund	2,464,786	698,209	192,129	65,441
Vanguard Fixed Income Short-term Corp. Fund	2,900,137	251,680	183,497	570,706
Fidelity Aggressive Equity Portfolio	48,600,401	16,309,168	3,198,871	3,833,643
A. O. Smith Stable Asset Income Fund	30,560,560	1,941,677	1,439,489	3,822,278
Vanguard Institutional Index Trust Fund	15,704,496	4,798,346	1,023,585	560,106
A. O. Smith Income Fund	19,703,210	1,372,228	2,258,541	2,651,060
American Balanced Fund	8,780,279	1,868,376	604,442	897,757
Portico Growth and Income Fund	21,063,483	6,598,732	1,250,031	1,521,385
Total	\$ 153,090,013	\$ 34,395,994	\$ 10,395,519	\$ 14,249,182

4. Income tax status

The Plan obtained its latest determination letter on April 27, 1995, 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 has been amended since receiving the determination letter. However, 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.

5. 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.

6. Use of estimates

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

7. Sale of a major division

On April 18, 1997, A. O. Smith Corporation sold its Automotive Products Company to Tower Automotive. All account balances of the Automotive Products Company employees, which had been previously invested in the A. O. Smith Profit Sharing Retirement Master Trust, including in addition all accounts of the A. O. Smith Employee Savings Plan, the A. O. Smith Employee 401(k) Savings Plan, and the A. O. Smith Saving and Investment Plan, were transferred to Tower Automotive's defined contribution plan by September 30, 1997.

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 June 24, 1999, 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, 1998.

Milwaukee, Wisconsin
June 24, 1999

REILLY, PENNER & BENTON LLP