BRUNO LATOUR, *The pasteurization of France*, trans. Alan Sheridan and John Law, Cambridge, Mass., and London, Harvard University Press, 1988, 8vo, pp. 273, £23.95.

GEORGES CANGUILHEM, Ideology and rationality in the history of the life sciences, trans. Arthur Goldhammer, Cambridge, Mass., and London, The MIT Press, 1988, 8vo, pp. xi, 160, £17.95.

Bruno Latour has written a wonderfully funny book about himself. It is difficult, however, to summarize a text committed to the view that "Nothing is, by itself, either reducible or irreducible to anything else", (p. 158). In Latour's opinion, the common view that sociologists of knowledge and scientists are opposed is incorrect. Both groups, according to Latour, are the authors of identical mistakes: reductionism and, relatedly, attempting to conjoin (in the instance of the sociologist) science and society, or (in the instance of the scientist) keeping them apart. For Latour, there are only forces or resistances which different groups encounter and attempt to conquer by forming alliances. These groups, however, are not simply the actors of conventional sociology. They include, for example, microbes, the discovery of the Pasteurians, with which they have populated our world and which we must now take notice of in any encounter or war in which we engage. War is a fundamental metaphor for Latour, since in a war or a battle clashes of armies are later called the "victory" of a Napoleon or a Kutuzov. Likewise, he argues, the Pasteurization of France can be viewed as a battle, with its field and its myriad contestants, in which opposing sides attempted to mould and coerce various forces of resistance. Strangely, he points out, the outcome of this huge battle, the labour and struggle of these masses, we attribute to the scientific genius of Pasteur. Pasteur's genius, however, says Latour, lay not in science (for this could be yet another way of making science and society distinct) but as strategist. Pasteur was able to cross disciplinary lines, recruiting allies to laboratory science by persuading them that they were recruiting him. This was possible because, like the armies in battle, they had already done the work of the general. Thus Pasteur's microbiology, which might conventionally be seen as a whole new science, can also be construed as a brilliant reformulation of all that preceded it and made it possible. Hygienists seized on the work of the Pasteurians and the two rapidly became powerful allies because "The time that they [the hygienists] had made was now working for them" (p. 52). French physicians, on the other hand, resisted recruitment, since for them it meant enslavement. Finally, however, they recruited the Pasteurians to their enterprise. Pasteurian public health was turned into a triumph of medicine.

It is impossible to read this book and not substitute Latour for Pasteur. At the head of his own army, increasingly enlarged by the recruitment of allies, Latour now presents us, in his own language, with something we have made, or at least made possible. The cynic might say, using the old jibe against sociologists, that Latour has explained to us in his own language everything we knew anyway. Retorting thus, however, would be to unselfconsciously make an ally of Latour and miss the point by a narrow margin that might as well be a million miles. Latour says all this much more clearly (and certainly more wittily) than any review. Read it, but beware; in spite of Latour's strictures about irreducibility, the text is not what it seems. This is a recruitment brochure: Bruno needs you.

Among the many historians whom Latour convicts by quotation of mistaking the general for the army, Pasteur for all the forces at work in French society, is Georges Canguilhem. Latour uses two quotes from Canguilhem, both taken from the original French version of *Ideology and rationality in the life sciences*, first published in 1977. Reading Canguilhem after Latour induces a feeling akin to culture shock. Astonishingly, Canguilhem seems almost Anglo-American. Anyone familiar with Canguilhem's epistemological universe would hardly be surprised to discover that Latour finds in it perspectives different from his own. After all, Canguilhem remains committed to the epistemologically distinct entity science or, better still, sciences. Likewise he employs distinctions between science and ideology, as in Spencerian ideology and Darwinian science, which will seem familiar, possibly jaded to English-reading eyes. His text is liberally seeded with unLatourian expressions, including injunctions to distinguish "between ideology and science" (p. 39), lamentations that eighteenth-century medicine "squandered its energy in the erection of systems" (p. 53), rejoicing that physiology "liberated itself" from classical anatomy (p. 54), and regret that "Stahl's influence ... seriously impeded experimental research" (p. 89). Such infelicities, however, should not lull the reader into a routine denunciation of a positivism-inspired plot, for the judgement would be mistaken. Canguilhem's account of science and progress in history arises from the epistemological configurations hatched up by Gaston Bachelard. The Anglo-American reader who can tolerate what seem on first hearing to be whiggish pronouncements will find much in this text of value. It comprises a number of different essays, written at different times, mainly on nineteenth- and twentieth-century biology and medicine. Unless I am looking in the wrong place, however, the essay on John Brown's medical system contains nothing original. By contrast, the paper on biological regulation is full of insights as is the piece on nineteenth-century medical theory. Unfortunately and tantalizingly, both papers sketch a view of Claude Bernard's physiological programme as ideologically congruent with nineteenth-century political theory, but fail to fill in the details. At over ten pence a page, this is a rather expensive price for an Impressionist. As a French import, Pasteurization may well represent better value for money.

Christopher Lawrence, Wellcome Institute

PATRICIA E. PRESTWICH, Drink and the politics of social reform: anti-alcoholism in France since 1870, Palo Alto, The Society for the Promotion of Science and Scholarship, 1988, 8vo, pp. viii, 365.

Patricia Prestwich's book is a well-researched and carefully reasoned history of both anti-alcoholism and alcoholic consumption in France since the last years of the Second Empire. It goes well beyond the scope and depth of earlier attempts by historians to interpret the French approach to the public-health consquences of drink. Prestwich's interpretive challenge is to explain why the French temperance movement was less successful than its English and American counterparts in pressuring the state to pass anti-alcoholism legislation. Her account undermines the resilient myth that anti-alcoholism mainly attracted teetotal, puritanical, and moralizing men and women of the middle class. She also disputes Michel Foucault's thesis that anti-alcoholism movements were dominated by bourgeois reformers who, obsessed with fear of mounting social disorder among the lower classes, mainly sought to impose greater discipline on vulnerable social groups. "If discourse on drink has often revealed bourgeois values of order and progress, as well as insecurities about the growth of the working class," she writes (p. 286), "it is also true that middle-class temperance movements had a valid and well-documented concern about the effects of increased consumption of alcohol." These concerns about the growth of alcoholism, Prestwich concludes, had a basis in reality and therefore enjoyed a certain "scientific validity" (p. 2).

Prestwich argues convincingly that French temperance advocates had a stiff task because "in France anti-alcoholism had no natural allies" (p. 190). There were powerful economic interests and well-entrenched habits which encouraged the consumption of wine, beer, cider, and distilled alcohol. Even when anti-alcoholism propaganda was able to convince French men and women that excessive consumption of some forms of alcohol could be dangerous to health, it was hard to destroy the customary belief that wine was a nutritious drink which could be rarely abused. Consequently, French legislation against alcoholism proceeded slowly. However, Prestwich finds reason for satisfaction in recent years, as the effects of a century-long public education campaign about the dangers of alcohol seem to have finally taken effect and have led to a decline in French alcoholic consumption since the 1970s.

For the historian of medicine, Prestwich's book is valuable because she sheds light on medical participation in the anti-alcoholism movement. Medical interest was primarily psychiatric in origin, she argues, and gathered momentum after mid-century, when Magnus Huss coined the term "alcoholism". But medical interpretations of alcoholism, informed as they were for so long be degeneracy theory, were contradictory, "delphic in . . . obscurity" (p. 57), largely unrelated to therapeutics, and frequently punctuated by "moralizing". Moreover, doctors tended to share the popular attitude that wine was immune from criticism. They concentrated their efforts on publicizing the notion that the effects of alcohol depended more