



Working Paper Series



This paper can be downloaded without charge from:
<http://www.richmondfed.org/publications/>



THE FEDERAL RESERVE BANK OF RICHMOND
RICHMOND ■ BALTIMORE ■ CHARLOTTE

James Pennington, (1777-1862):
Classical Banking, Monetary, and Trade Theorist and
Economic Policy Advisor^{1, 2, 3}

Thomas M. Humphrey⁴

Research Department

Federal Reserve Bank of Richmond

Working Paper No. 03-08

July 17, 2003

Abstract

James Pennington's creativity as a scientific economist is matched only by his obscurity. He exemplifies the pioneering innovator who never gets his due recognition. Alone and with others he launched (1) the idea that checking deposits are money just like coin and notes, (2) the theory of the multiple expansion of bank deposits, (3) the currency principle according to which a mixed paper-metal currency can be made to behave as if it were entirely metallic, and (4) the notion that reciprocal demand fixes the terms of trade between the comparative cost ratios of two trading nations. Any one of these contributions should have made him famous. But they failed to do so and his name, neglected enough in his own time, is virtually unknown today.

¹ Biographical essay commissioned by and written for the *Dictionary of British Economists*, edited by Donald Rutherford, to be published in 2004 by Thoemmes Press, Bristol, United Kingdom.

² **JEL Classification:** B31; B12; E51

³ **Keywords:** Classical economics, currency principle, currency school, multiple expansion of deposits, reciprocal demand and the terms of trade.

⁴ E-mail: Tom.humphrey@rich.frb.org Phone: (804) 697-8204

PENNINGTON, James (1777-1862)

James Pennington was born in Kendal, Westmoreland on Feb. 23, 1777 and died in Clapham on March 23, 1862. He was the third of five children born to William Pennington, a bookseller, printer, and architect who became mayor of Kendal, and his wife Agnes Wilson, the daughter of a clockmaker. At the Quaker school in Kendal, he studied under George Bewley, a teacher proficient in higher mathematics, and John Dalton who later became a professor of mathematics and natural philosophy at Manchester. These teachers and the subjects they taught must have appealed to a mind that was at once adroit at handling numbers and relentlessly analytical – the diarist J.L. Mallet likened it to Charles Babbage’s engine for computing logarithms.

On November 30, 1811, he married Mary Anne Harris who was to bear him four sons and three daughters all of whom would become parishioners, and he a trustee, of the Clapham Anglican parish church. Upon marriage, he moved from London, where he had relocated years after leaving school to pursue a business career, to his wife’s hometown of Clapham where he lived for the rest of his days. R. S. Sayers’s definitive 1963 account of his life and writings -- an account this and the following paragraphs exploit -- is indispensable to an understanding of Pennington.

His behavior toward policymakers reveals a man both ambitious and deferential. Ambitious in his use of the prestigious and influential Political Economy Club, which elected him to its membership in 1828 upon Thomas Tooke’s recommendation, as a vehicle to propagate his views. Ambitious, too, in that he occasionally submitted unsolicited memoranda -- memoranda that he re-cycled verbatim in later work -- on his own initiative to officials he sought to persuade. And deferential in that he larded these same documents with self-effacing passages. These traits, vintage Pennington, characterized ‘the humble expert who rather liked having his brains picked by men of high estate’ (Sayers 1963: xliv). He could also be aggressive, as when he persistently and repeatedly lobbied the India Office in 1835-7 to correct what he perceived as its underpayment for his past services.

Little is known of his career as a businessman other than that it included stints as a merchant and, as befitted his advanced numerical skills, a professional accountant. We can only speculate on the income these ventures produced. His later complaints of financial difficulties together with his paltry estate of less than £ 3000 left to his heirs suggest earnings so low as to

allow little accumulation of wealth. On the other hand, his decision after 1832 to switch careers and become an advisor and political economist, occupations offering sporadic and modestly paid employment at best, suggests prior business earnings sufficient to fund him comfortably in his new callings.

We know something about this new career in which he served as currency expert and occasional consultant to ministers and government departments. Its beginnings date from 1826-7 when he submitted three pathbreaking memoranda on the creation and control of the money stock to William Huskisson, the president of the Board of Trade. His career got a boost when the Board of Control of India appointed him in 1832 to audit the books of the East India Company preparatory to the winding down of the trading business of that company. The years 1837 and 1839, respectively, saw him advising the Colonial Office and the Treasury on the West Indian coin shortage and the Chancellor of the Exchequer on ridding England of worn or underweight coins. Attributing the coin shortage to overvaluation of gold at the mint and the resulting removal from circulation and melting down of coin for sale there, he reported his findings in his anonymously published *The Currency of the British Colonies* (1848). As for the worn coins, tax collectors and other potential recipients could eliminate them by weighing and refusing to accept them, thereby forcing holders to surrender them to the Bank of England for their bullion value. In 1840 he entered the Corn Laws debate with his contention that removal of import duties on corn would lower the domestic price of that commodity only slightly. In 1844 at Robert Peel's request he estimated the profits the Bank of England would realize on its note issue, figures essential to the Bank's negotiated settlement with the government under the provisions of the Bank Charter Act of that year. Minor assignments of a narrowly technical nature followed, the last in 1854.

His economics writings contain seminal contributions to the theories of banking, monetary policy, and international trade. On the theory of banking, he contributed three new ideas, all set forth in his first memorandum to Huskisson. First, checking deposits are money just like coin and notes because they mediate exchanges and affect prices. Second, bankers themselves create such deposits when they make loans and credit the proceeds to the deposit accounts of the borrowers. Third, banks as a system can expand such deposits by a multiple of the cash reserve base.

His elucidation of the expansion process was especially astute. It described (1) how with fractional-reserve banking an initial cash deposit produces excess reserves, (2) how banks then lend these excess reserves in the form of checking deposits created for the borrowers, (3) how these borrowers then write checks on their deposits in favor of recipients, (4) how the recipients then deposit the checks in their own accounts, and (5) how this sequence augments the quantity of deposits per dollar of cash base. In this connection, he pointed out that when one bank expands its loans, it either recovers the proceeds in the form of re-deposits or else loses reserves to other banks through the clearinghouse so that they too can expand. Either way, deposits increase. In illustration, he showed that if one bank in a two-bank system lends and loses through the clearinghouse half its initial cash reserve to the second bank which does the same, deposits of both banks expand although the reserve base stays the same.

He failed to trace the expansion process beyond its first round and so, unlike his classical contemporary Robert Torrens, never specified the limit value of the deposit multiplier. But he did deny that the multiplier was a rigid mechanical relationship, an idea Torrens attributed to him. Correcting the latter's misinterpretation, he contended that bankers' desired reserve ratios, and so the size of the multiplier, varies with the state of business confidence. Here is the source of the flexible multiplier, a concept the banking school then and anti-monetarists ever since have employed to argue that because the credit superstructure (with deposits the chief component) can expand and contract independently of the narrow monetary base, control of the base hardly implies tight control of the superstructure.

On the theory of monetary policy, Pennington, in his second and third memoranda to Huskisson, gave the first clear statement of three elements that became part and parcel of currency school doctrine as embodied in the Banking Act of 1844. First was the currency principle according to which a mixed metal-paper currency could be made to behave as if it were wholly metallic. Second was a denial that mere convertibility of a paper currency into gold at a fixed price upon demand could achieve this result. Convertibility per se was an insufficient safeguard against overissue. Something else -- a monetary rule -- was required. Third was a statement of that rule in the form of a requirement that the issue department of the Bank of England monopolize the note emission and that it keep the value of its securities (loans and investments) at a fixed, constant level. Adherence to this rule meant that the Bank, because it was barred from altering its

securities and so the quantity of paper money issued against them, could issue only against changes in its holdings of gold. Consequently, the note (and deposit) issue would expand and contract one-for-one with corresponding expansions and contractions of the gold reserve in accordance with the currency principle. Here the currency school misunderstood the rule to apply solely to the note issue and prescribed a separate banking department to regulate deposits through discretion rather than rule. Surprisingly, Pennington, who correctly understood the rule to apply both to deposits and notes such that a separate banking department was unnecessary, nevertheless supported the school. It is a mystery why he did.

On the pure theory of international trade, Pennington, in his 1840 *Letter to Kirkman Finlay*, stated, for the first time in print, that the relative strength of each country's demand for the other's product determines the commodity terms of trade, which necessarily lies between the comparative cost ratios of the two countries. John Stuart Mill had stated the same idea in an essay written in 1829 and 1830, but published only in 1844. Thus Pennington's 1840 version was the first to appear in print. Nevertheless, Mill's version prevailed perhaps partly because Pennington's depicted volatile reciprocal demands causing the terms of trade to oscillate within the limiting cost ratios rather than settling at a stable determinate value.

To the few doctrinal historians familiar with his name, Pennington exemplifies the pioneering innovator who never gets his due. He remains, in Lionel Robbins's perceptive phrase, 'that Mycroft Holmes of the later generation of Classical writers' (1958: 245-6). For just as Sherlock Holmes's little known older brother was the smarter of the two siblings, so too the obscure Pennington arguably was cleverer than his celebrated classical contemporaries. How many of them possessed the brains and ingenuity to launch (1) the idea that checking deposits are money just like coin and notes, (2) the theory of the multiple expansion of bank deposits, (3) the currency principle according to which a mixed paper-metal currency can be made to behave as if it were entirely metallic, and (4) the notion that reciprocal demand fixes the terms of trade between the comparative cost ratios of two trading nations? Any one of these contributions, three of which are taught today, should have made him famous. But they failed to do so and his name, neglected enough in his own time, is virtually unknown today.

Bibliography

Pennington, J. (1826) *First Memorandum to Huskisson: Observations on the Private Banking Establishments of the Metropolis*. In *Economic Writings*, London: London School of Economics, 1963.

Pennington, J. (May 1827) *Second Memorandum to Huskisson: Observations on the Coinage*. In *Economic Writings*, ed R. S. Sayers, London: London School of Economics, 1963.

Pennington, J. (June 1827) *Third Memorandum to Huskisson: On the Management of the Bank of England*. In *Economic Writings*, ed R. S. Sayers, London: London School of Economics, 1963.

Pennington, J. (1840) *Letter to Kirkman Finlay, Esq., on the Importation of Foreign Corn, and the Value of the Precious Metals in Different Countries. To which are added Observations on Money, and the Foreign Exchange*. In *Economic Writings*, ed. R. S.Sayers, London: London School of Economics, 1963.

Pennington, J. (Anonymous) (1848) *The Currency of the British Colonies*.

Pennington, J. (1963) *Economic Writings of James Pennington: Edited With an essay on the Life and Work of James Pennington by R .S.Sayers*. London: London School of Economics.

Robbins, L. (1958) *Robert Torrens and the Evolution of Classical Economics*. London: Macmillan.

Sayers, R. S. (1963) 'The Life and Work of James Pennington'. In *Economic Writings*, ed R. S. Sayers, London: London School of Economics.

Thomas M. Humphrey
Federal Reserve Bank of Richmond