

FRITZ REDLICH

SCIENCE AND CHARITY:
COUNT RUMFORD AND HIS FOLLOWERS*

The topic of this paper might at first glance appear to lack interest. In fact, however, it is for many reasons of real significance. The men who brought about the set of achievements, to be discussed, and its migration, respectively, played roles on the stages of history, science, and business; and a whole bundle of social and economic problems was solved by a concatenation of measures. Last but not least, we can study here almost step by step a case of eighteenth- and early nineteenth-century institutional migration.

Before we describe the exploits that are the subject of this paper we must throw some light on the star actor, Benjamin Thompson, Count von Rumford (1753-1814). His life data may not be familiar to the readers, although they are generally available.¹ Benjamin Thompson was born in Woburn, Mass., and received what was for the time an education. He was trained for business; but, having taken some courses at Harvard College, he started his career as a teacher in what is now Concord, N.H., then called Rumford. In 1722, a judicious marriage with a middle-aged widow brought the nineteen-year old youngster a fortune and contacts with the New Hampshire colonial elite. As a result he became a commanding officer in the militia, an experience which before long would stand him in good stead. When political difficulties between the colonies and the mother country started, Thompson, who had aroused much antagonism, chose to remain loyal

* The following essay is based on pertinent articles in contemporary periodicals and on pertinent contemporary imprints. Very rich collections of both kinds of material are in the Harvard libraries, especially in the Kress Library. The author is indebted to Mr Kenneth E. Carpenter for valuable bibliographical assistance.

¹ Short biographies of Rumford are in the various national biographical handbooks, the *Allgemeine Deutsche Biographie*, the *Dictionary of American Biography*, and the *Dictionary of National Biography*. There are also a number of full-fledged biographies which, however, will be cited only to the extent that information has been derived therefrom.

to the crown and left the country when British troops were evacuated from Boston. Once in England, he entered British government service. Before the end of the War he was dispatched to America at the head of a British regiment of dragoons, with which he returned to England when peace was concluded. Put on half pay, in 1783 he received permission to make a trip to the Continent, where he succeeded in getting an introduction to the ruling Elector Karl Theodor of Bavaria. Entering the latter's service in 1784, he was knighted by the King of England.

Once in Bavarian service, Sir Benjamin Thompson rose quickly, beginning as the colonel of a regiment of cavalry and *Flügeladjutant* (*aide de camp* to the Elector). The Bavarian army was then in bad condition. After submitting a memorandum containing reform proposals, Thompson in 1788 was made minister of war. In the spirit of the aristocratic enlightened reformer of his time he tackled his assignment successfully, as far as it went. That is to say, his aim was to domesticate the soldiery, to make useful citizens out of soldiers, attempts then made in Prussia also; but he forgot that an army must be trained for war. Whatever else Rumford actually was and whatever he may have thought of himself, he was not a great army commander, let alone a great army reformer, such as Prince Maurits of Orange or the Prussian general von Scharnhorst. In the face of much justifiable opposition he achieved what he set out for; but when the Napoleonic era got under way, the Bavarian army proved a dismal failure. In his capacity as the minister of war Thompson was also the Munich chief of police, and as such he initiated a set of measures which will be discussed in this paper. Suffice it to say at this point that in 1790 he became a lieutenant general and in 1791 *Reichsgraf* with the title von Rumford. When his former protector, Elector Karl Theodor of Bavaria, died in 1799, Rumford retired from Bavarian service. From then on scientific activities filled his days.¹

¹ For a detailed and critical presentation of Rumford's activities in Bavarian military service, see Oskar Bezzel, *Geschichte des kurpfälzbayerischen Heeres von 1778 bis 1803*, Bayerisches Kriegsarchiv, *Geschichte des Bayerischen Heeres*, Vol. V (München, 1930), see index under Thompson. A good deal of detailed information on Rumford can be found in the *Bibliothèque Britannique*, series *Sciences et Arts*, XX (1802), pp. 192 ff.; XXI (1802), pp. 190 ff.; XXXIV (1817), p. 114. A contemporary "Biographical Memoir of the Late Count Rumford" is in *The Tradesman or Commercial Magazine*, V (London, 1815), see index.

I

Since his early days Thompson's interest had been aroused by what was then called "natural philosophy", and he became an indefatigable researcher and experimenter all his life. It is as a scientist and as one of the founders of the science of thermodynamics that Rumford acquired fame and made for himself a secure place in history. A rare combination, that of scientist, high ranking army officer and army commander, efficient organizer, and experienced technologist, made possible the set of achievements to be discussed here.

According to John Tyndall "the practical management of fire and the economy of fuel" were the main objects of Rumford's scientific interest.¹ Or to quote the first incumbent of the Rumford professorship at Harvard University, the Count's study of "the modes of detaining and economizing heat that the greatest quantity of caloric might be brought into use with the smallest expense of combustion" and the practical application of what he had thus learned brought Rumford from the fireside of the parlor into the humbler sphere of culinary operations.²

Correct as these statements are, they do not indicate where the causal chain, here under survey, started. We need to be aware of a very complicated concatenation of goals due to the interaction of the multiple and many-sided functions which Rumford performed in the critical years. Nevertheless we must start somewhere and, in so doing, we are best guided by Rumford's own writings. We can certainly assume that it was no accident, but due to a reasoned decision, that the very first of his *Essays Political, Economic and Philosophical*,³ our most

¹ New Fragments (London, 1892), p. 168, quoted from Dictionary of National Biography. Tyndall's statement is based on the title of Essay VI "Of the Management of Fire and the Economy of Fuel", in *Essays Political, Economic and Philosophical*, II (London, 1798), pp. 3 ff. This essay can be found reprinted also in Rumford's *Collected Works*, II (Cambridge, Mass., 1969), pp. 309 ff., henceforth to be cited as *Harvard Collection*. There are also the *Complete Works of Count Rumford* (Boston 1874). Vol. IV contains a valuable bibliography of writings on Rumford preceding the date of publication of this collection.

² Jacob Bigelow, *Inaugural Address Delivered in the Chapel of the University at Cambridge, December 11, 1816* (Boston, 1817), p. 20. Rumford had bequeathed \$1000 and the reversion of other sums to Harvard for an institution and professorship to teach and offer public lectures accompanied with proper experiments on the utility of physical and mathematical sciences for the improvement of the useful arts and for the extension of the industry, prosperity, happiness and well being of society; *ibid.*, p. iii.

³ First edition, London 1796 and several later ones. The citations in this paper, taken from Vol. I, refer to the third edition of 1797, those taken from Vol. II to

important source, deals with “An Account of an Establishment for the Poor at Munich together with a Detail of Various Public Measures connected with that Institution...” So let us begin by describing Thompson’s actions and achievements which resulted from this establishment; yet, in so doing, let us also keep in mind that knowledge of, and rudimentary experience gained through, experiments in the field we now call thermodynamics were available to the actor and preceded his actions and achievements.

The social problem which Rumford tackled with the Munich Establishment for the Poor was designated in England as that of the “sturdy beggar”.¹ In fact, it was a problem which worried all of eighteenth-century Europe. Given the state of technology and industrial organization, even the leading countries could not bring available work and available manpower together. In Munich alone, which including suburbs had by the end of the eighteenth century about 60,000 inhabitants, there were at least 1800 beggars and 2600 people, including beggars, in need of public assistance. These beggars represented power; begging and stealing, they made an unbearable nuisance out of themselves and laid small businesses, especially the butchers, the bakers, and tavern keepers, under contribution. The amount of foodstuffs extorted by the beggars from petty businessmen

the edition of 1798. A German edition of Rumford’s *Essays* appeared under the title *Benjamin Grafen von Rumford Kleine Schriften politischen, ökonomischen und philosophischen Inhalts nach der zweyten Ausgabe aus dem Englischen übersetzt* (Weimar, 1797). It is not accessible to me. Some of the *Essays* were translated into French and can be found in Adrien Cyprien Duquesnoy, ed., *Recueil des Mémoires sur les établissemens [sic] d’humanité* (Paris, 1798 ff.). There are complete French and Spanish translations of Rumford’s *Essays* under the following titles: *Essais politiques, économiques et philosophiques*, tr. de l’anglais par L.M.D.C. [Le Marquis de Courtivron], 6 vols, I-II: Genève, An VII (1799); III-V: Paris, An X (1802)–An XIII (1804); VI: Paris, 1806; and *Essayos políticos, económicos y filosóficos del Conde de Rumford*, traducidos de orden de la Real Sociedad Económica (Madrid, 1800).

Dr Hans Jaeger of the University of Munich, on the author’s request, very kindly perused the primary material on Rumford and his achievements extant in the Munich archives, namely, the Bayerische Allgemeine Staatsarchiv, the Staatsarchiv für Oberbayern, and the Munich Stadtarchiv. In the Staatsarchiv für Oberbayern there are records of the Armenenstalt “1788-1825”. In fact, however, they contain only bills of and correspondence with purveyors or employees for the years after 1805. It is known that Rumford, going to England, took a good many manuscripts to this country and worked them up in his *Essays*. This may explain at least some of the gaps in the records. See also below, p. 209, note 1.

¹ See Essay I, chapter I.

(craftsmen) was sufficient to make the former the purveyors of local peddlers and hucksters. In his capacity as the chief of the Munich police, Rumford set out to put an end to this nuisance. Yet this nuisance, coming close to being a plague, could be stopped only if work was given to the "sturdy beggar" and care to the helpless poor, with food to both categories.

In 1789, prior to taking action, Rumford had established works in Mannheim and in Munich to provide the Bavarian army with uniforms and other equipment; the former to serve the troops stationed in the Palatinate and Jülich-Berg, the latter those in Bavaria proper.¹ These "manufactories" were typical consolidated, centrally administered workshops (protofactories), which Marx and Sombart would have called *Manufakturen*. They were state owned; the one in Munich first had a capital of 150,000 fl. which was later increased to 250,000 fl. and was profitable; while that in Mannheim was not. The industrial establishment at Munich, called the Military Work House (*Militärarbeitshaus*), interests us here only in so far as it tied in with Rumford's welfare organization, eliminating mendicancy.

In the Military Work House the sturdy beggars who had infested the city were to be educated to work and to become respectable and self-sustaining. Teachers of a number of crafts, particularly of spinning, as well as spinning wheels and raw material were ready when, on January 1, 1790, all Munich beggars were arrested, registered,² and separated according to whether they were employable or not. The former were forced to appear at the Work House. Naturally confusion could not be avoided in the first days of operation; resistance of some of the beggars, accustomed to idleness and a certain freedom, was unavoidable; but there was no rioting. Those who had learned a craft were used for that kind of work; the rest were taught spinning, first of hemp, later of flax and wool. Initially 3000 fl. were lost through the spoilage of raw material; but in the end the scheme worked. Originally the men, women, and children, forced to work but remunerated from the first day on, were overpaid. Later when transferred to the spinning of flax and wool, they received market rates.

Central to the action was a state-owned soup kitchen in which the working and indigent Munich poor received gratis 20 ounces of soup per day and a piece of rye bread weighing seven ounces.³ The bread

¹ Bezzel, op. cit., pp. 151-153, 238, 309, 496. For the following, see Essay I, chapters IV and V.

² This was possible because of a preceding dwelling registration.

³ Essays, I, pp. 242, 243; Harvard Collection, V, pp. 49, 213.

was made in a bakery also owned by the state. Kitchen and bakery were on the grounds of the Military Work House, but under the administration of a welfare organization, to be described later,¹ which at the same time financed kitchen and bakery. The success of this complicated set of actions was due to the organizational ability and far-sighted planning on the part of Rumford, in combination with his devotion to minute detail (which comes out also in his scientific writings) and military brutality in the execution of the scheme.² But considering eighteenth-century officialdom, success points also to remarkable bureaucratic efficiency.

It would be desirable if we could know how Rumford hit on the idea of making a public kitchen the center-piece of his actions which had social, industrial, and eleemosynary aspects. The material known to the author does not even permit sensible conjectures, unless the count's statement that the "poor might be fed from a public kitchen *for less than half* [italics in the original] what it would cost them to feed themselves" provides us with a lead.³ As a matter of fact, Rumford would have liked to see public soup kitchens established in every town and larger village.⁴ *Permanent* soup kitchens were unheard of at that time, although the temporary doling out of soups or other food, especially in emergencies, is recorded, for example for France. But Rumford was certainly the first who conceived the idea of feeding out of a public kitchen what were for the time very large numbers of people *permanently*, and he put the plan into effect as early as January 2, 1790. In the execution of the scheme the scientist Rumford entered the field.

In the eighteenth century the depletion of the European forests first reached an alarming proportion, all the more since wood was still the most important workstuff and was not as such supplanted as yet by iron. Needless to say, under these circumstances the price of wood rose everywhere. Therefore if one wanted to feed regularly numerous people in one spot, it had to be done, if at all, at a very low overall cost. Now, since the upward movement of the price of wood could not be controlled, the only way out was lowering the consumption of fuel, and this

¹ See p. 208.

² When in the middle of the nineteenth century, science became more sophisticated, Rumford's emphasis on detail appeared ludicrous. See George E. Ellis, *Memoir of Sir Benjamin Thompson Count Rumford with Notices of his Daughter* (Philadelphia, n.d. [1817]), p. 200. Ellis' source, an article by Lord Brougham, could not be located.

³ *Essays*, I, p. 102; Harvard Collection, V, pp. 89, 181.

⁴ *Essays*, I, p. 204; Harvard Collection, V, p. 181.

problem had already been solved by the ingenious scientist-technologist, Rumford. Prior to 1790 he had succeeded in constructing a fuel-saving hearth which improved the efficiency of those customarily used in hospitals and the like, measured by the amount of fuel consumed.

What Rumford achieved was remarkable: he eliminated mendicancy in the capital and for that matter in the whole of Bavaria (which is of no interest in our context); he made employable beggars work and become useful members of society, thereby counteracting the chronic lack of yarn; he fed up to 1500 workers and indigent poor per day out of a public kitchen; and did so with a minimum of the then scarce fuel by using an efficient hearth of his own construction. As if this had not been enough, another achievement was added. Rumford fed the workers of the military manufactory and the indigent poor of Munich with a nutritious and savory food, a soup the ingredients of which he himself had selected after extensive tests, ingredients which helped to overcome also the contemporary dearth of bread grain.

The following was the original recipe of the new barley-pea soup which quickly acquired the name of "Rumford soup"; under this name it still appears, albeit in slightly changed form, in the most recent German cook books. For 1200 helpings, 1485 lbs and 10 ounces of food and water were put into the cooking kettle, as follows:

141 lbs and	2 ounces of	pearl barley;
131 "	" 3 "	" yellow peas;
69 "	" 10 "	" cuttings of wheat bread;
19 "	" 13 "	" salt;
46 "	" 13 "	" very weak beer or vinegar or beer turned sour;
1077 "	" 0 "	" water.

According to a modern computation, each pound of this soup contained 19.1 grams of protein, 2.5 grams of fat, and 86.1 grams of carbohydrates, or a total of 454.5 calories. Or, since a helping amounted to 20 ounces, the consumer of the soup absorbed 568.3 calories. Thereto must be added the number of calories represented by the seven-ounce chunk of rye bread that went with the soup. Yet, considering that according to present standards a man needs according to age, height, and weight from 2500 to 3000 calories per day, Rumford's feeding program, of which he was exceedingly proud, left the poor and especially the laborers, except perhaps the children, woefully undernourished. To be sure, the workers, male, female, and children, received wages wherewith they could have bought additional food; but we do not know whether in view of other unavoidable expenses, they could

or at least would do so. Rumford thought they almost never did.¹

The total expense of the foodstuffs going into the soup and of the fuel (88 lbs. at a cost of 8 sh 2¼d) amounted to £1.11.11. The cooking was done by three "cook-maids" who were remunerated by wages and food; they were assisted by two men servants who received wages only. Repairs of the hearth and kitchen interiors were figured at £8.3.7 per year. If these costs are added, the total daily expenditure for 1200 helpings was £1.15.2¼ or about one third of a penny per helping per day.²

After some time this recipe was changed, and potatoes took the place of some of the barley. In view of the contemporary prejudice against potatoes, they were first introduced by stealth. They were cooked apart in a special kitchen until form and texture were destroyed, and then the mash was added to the soup which contained a smaller amount of barley than before. When the consumers had become accustomed to the second kind of soup and liked it, potatoes were openly used. The barley-potato-pea soup (1200 helpings again) consisted of:

70 lbs and	9 ounces of	pearl barley;
65 "	" "	10 " " peas;
230 "	" "	4 " " potatoes;
69 "	" "	10 " " cuttings of bread;
19 "	" "	13 " " salt;
46 "	" "	13 " " vinegar;
982 "	" "	15 " " water.

Lowering the amount of water here in comparison with the barley-pea soup, seems to imply that Rumford was aware of the water content of potatoes. The cost of the soup dropped to £1.7.6½, including fuel, wages, and repairs, or to about one farthing per helping. Yet the introduction of the potato replacing a certain amount of barley was a grievous error. The food value per pound of the soup dropped to 12.5 grams of protein, 1.4 grams of fat, and 66.7 grams of carbohydrates or 337.7 calories. The intake per helping was now only 422.1 calories, to which again the calories of the chunk of bread must be added. The unfortunate result was due to the fact that Rumford held an erroneous

¹ Essays, I, pp. 209-211, 243; Harvard Collection, V, pp. 185-187, 213; Plain Words about Food: The Rumford Kitchen Leaflets 1899 (Boston, 1899), p. 22; 1970 World Almanac, p. 898.

² Of course the costs were incurred in Bavarian currency, but Rumford gives them in sterling currency, just as he transposed the Bavarian weights into lbs.

theory, considering, as he did, that water was food.¹ Rumford later recognized that the soups could be much improved by the addition of meat, fish or fat.² As to the prices given in the preceding paragraphs, actually Munich prices expressed in sterling currency, the reader must be warned. They indicate that the ingredients of the soups and the cost of preparing them were very low, but the absolute figures mean little. Because of underdeveloped transportation, prices varied widely between various cities of the same country and various countries. Rumford computed that 1200 helpings of his barley-pea soup would cost in London £3.9.9 $\frac{3}{4}$ (as against the Munich price of £1.15.2 $\frac{1}{4}$) and of the barley-potato-pea soup £3.4.7 $\frac{3}{4}$ (as against the Munich price of £1.7.6 $\frac{3}{8}$). That is, he computed the London cost of one helping of the former soup at 2 $\frac{3}{4}$ farthings, of the latter at 2 $\frac{1}{2}$ farthings (1 penny being equal to 4 farthings).³

From the vantage point of our own time, several of Rumford's nutritional theories may appear untenable, yet the scientific spirit with which the problem as a whole was tackled was not only remarkable for its day, but remains so for our own time. The problem was to find a dish which was nutritious, savory, cheap, and could be so varied as not to become unpalatable through being served day after day; and this could be achieved by replacing every so often yellow peas by kidney beans or lentils.

Not only the most advantageous ingredients were carefully selected, but also the best possible process of preparing the soup was investigated. Rumford himself gave the following advice:

“The method of preparing this soup is as follows: The water and the pearl barley are first put together into the boiler and made to boil; the peas are then added, and the boiling is continued over a gentle fire about two hours; – the potatoes are then added, (having been previously peeled with a knife, or having been boiled, in order to their being more easily deprived of their skins), and

¹ For the documentation of the preceding, see the reference to the Essays above, p. 191, note 1. Rumford's theoretical error is brought out in Essays, I, p. 194; Harvard Collection, V, p. 172. The error seems to have been widely held in that period; see *Décade Philosophique*, XXVII (1801), p. 198.

² Essays, I, p. 217; Harvard Collection, V, pp. 191, 192.

³ Essays, I, pp. 213, 214; Harvard Collection, V, pp. 189, 190. Articles on “Rumfordsche Suppe” und “Rumfordscher Suppengries” can also be found in Johann Georg Krünitz, *Oekonomisch-technologische Encyclopädie oder allgemeines System der Staats- Stadt- Haus- und Landwirthschaft und der Kunstgeschichte*, Vol. 128, ed. Gustav Flörke (Brünn, 1821), pp. 442-498.

the boiling is continued for about one hour more, during which time the contents of the boiler are frequently stirred about with a large wooden spoon, or ladle, in order to destroy the texture of the potatoes, and to reduce the soup to one uniform mass. – When this is done, the vinegar and the salt are added; and last of all, at the moment it is to be served up, the cuttings of bread.”¹

Before we can understand what Rumford’s dietary innovation implies, we must get at least a superficial picture of what the low classes lived on in the eighteenth century. In Germany the poorest of the poor subsisted on rye bread and thin beer or water, while in the southern regions of England they ate day after day bread and cheese, washed down with sugared tea (wheat bread had replaced rye bread in the eighteenth century). In Scotland, Wales, and the Northern parts of England the situation was a little better, the lower classes living on “hasty pudding”, i.e. oatmeal, or “crowdie”, a Scottish oatmeal dish. Pease kail (boiled peas) was also eaten. We shall speak on barley dishes in another context.² Working families in England which were a little above the poverty level ate meat once a week. It was roasted, baked (when a baker was in the neighborhood), or boiled; in the latter case the broth was not as yet used for making a soup.³ Then as now, the Italian lower classes lived on macaroni, and Rumford knew this.⁴ The use of potatoes was still more or less in its beginning, yet rapidly increasing.⁵

Another way of getting a feeling for the diet of the lower classes is to look at that of soldiers who in the eighteenth century still belonged to the poorest strata of the population. A Prussian soldier by 1750 received eight groschens for five days. A full meal plus a glass of beer

¹ Essays, I, p. 196.

² See below, p. 195.

³ Sir F. Eden, Bart., *The State of the Poor or an History of the Labouring Classes in England* (London, 1797), I, pp. 496-503.

⁴ “Of Food”, in Essays, I, pp. 278, 279; Harvard Collection, V, pp. 244-246.

⁵ Essays, I, pp. 283ff.; Harvard Collection, V, pp. 248ff.; Eden, op. cit., I, pp. 501-503. In order to avoid any misunderstanding, it must be stated that Rumford was not the first to suggest soups. He devised a particular one which was cheap and nutritious. Soups were prepared and eaten in France in the seventeenth century, if not earlier. Vauban recommended them for feeding soldiers. Eden testifies to the use of cheap soups in certain parts of England. In Germany, beer soups were common fare. Other kinds of soups were eaten in the homes of the lower strata and dispensed at low-class eating places. Soups prepared with water instead of with beer or milk were often called *Bettelsuppen*, Rumford reports that bread soups were common fare for Bavarian soldiers; but on the whole he felt that the general use of soups in Germany could be increased.

cost then two groschens in the cheapest kind of eating place, called a *Garküche*. It could be afforded only by such soldiers as had some extra income. This, however, many had, since they were permitted to work when not on guard duty or performing other service. Yet most soldiers clubbed together and prepared at least some of their meals in common, as intended by the military authorities. They began in the mornings with a chunk of dark bread, which they received gratis from the army (*Kommissbrot*, ammunition bread) and washed it down with cheap liquor (*Fusel*). At noon they may have bought soup in the *Garküche*, eating it with another chunk of bread; or else or in addition to the soup they prepared for themselves a dish of yellow peas, spelt, and potatoes. The evening meal consisted of bread accompanied by a glass of cheap beer (*Dünnbier*). When the soldiers boarded with the people on whom they were quartered, their main meal consisted of soup with potatoes and a little meat; for the rest of the day the men might live on herring, cheese, and neat's foot in addition to their bread ration. When marching and campaigning, troops received from the military authorities one and one half or two pounds of bread, one or one and one half pounds of meat, and beer or wine.¹

Several questions pose themselves at this point. First, how was Rumford drawn into the field of nutrition? Was it the outcome of his research in the area of thermodynamics or was "natural philosophy" then still so undeveloped that students of physics were bound to roam all over the field? Did his experience as an apprentice to a Woburn doctor, as he was in his youth, play a role when turning his attention much later to nutrition? Contemporaries agreed that Rumford, whatever he did for the lower strata, was not motivated by an humanitarian spirit.²

Secondly, when one keeps in mind that the later decades of the eighteenth century saw the introduction of the potato into general use in most European countries and when one knows that Rumford himself

¹ Fritz Redlich, *The Military Enterpriser and his Workforce* (Wiesbaden, 1965), II, p. 193; contemporary and other sources are cited there. What Rumford has to say about the meals of Bavarian soldiers, being the result of official experiments made by corporals on order, are not very illuminating, see *Essays*, I, pp. 225ff.; *Harvard Collection*, V, pp. 197ff. These soldiers were made to appear fed above standard.

² Georges Cuvier, "Biographical Memoir of Sir Benjamin Thomson [sic] Count Rumford", in: *The Edinburgh New Philosophical Journal*, VIII (1830), p. 227. The original of Cuvier's piece "Eloge historique", read before the French Institute, January 9, 1815, in: *Recueil des éloges historiques* (Paris, 1861), II, pp. 24-55, is not accessible to me. Another contemporary looked at Rumford as a "projector", no praise for a contemporary aristocrat; see, Ann Cary Morris, ed., *The Diary and Letters of Gouverneur Morris* (New York, 1888), p. 335.

promoted potato planting and the consumption of potatoes in Bavaria,¹ one is surprised that barley and not potatoes became the basis of the soup.² Yet the reasons are clear; quite disregarding the still strong prejudice against the new foodstuff, in Bavaria potatoes were at that moment not widely enough grown, and the problem of holding them over from one harvest to the next was not as yet solved, although close to the solution. To be sure, we know that later, in a second step, potatoes became ingredients of the Rumford soup.³

However, the third question is the most interesting one. How was it that Rumford came to choose barley as the most important ingredient of his soup? In his time in Germany barley was mainly used for brewing beer, although already some was used as food. Rumford found pearl barley (in German *Perlgraupen*) in the market and could rely on a ready supply. According to a semi-official French report, barley was first recommended as a foodstuff in France by 1680, and it was presumably so used shortly thereafter.⁴ In 1724, another recommendation of the use of barley emanated from Jean Adrien Helvetius and can be found in his much read and repeatedly reprinted *Traité des Maladies les plus fréquentes*. In England, as Eden reports, laborers in Northumberland and Cumberland were users of barley bread and of a great variety of soups based on barley, one dish, called “frumenty”, consisted of boiled barley and skimmed milk. Yet in the south of the country barley soups were still unknown at the end of the eighteenth century. The question then is: was Rumford aware of these cases of

¹ For example, he established in all garrisons gardens in which soldiers were permitted to grow what they wanted but were supposed to plant potatoes for their own use; see *Essays*, I, pp. 10, 11; *Harvard Collection*, IV, pp. 10, 11; also *Essays*, I, pp. 282ff.; *Harvard Collection*, V, pp. 249ff.

² Antoine-Alexis Cadet de Vaux tried to develop the by then established *soupe économique* into a potato soup pure and simple, and he did so about twenty-five years after Rumford's original achievement; see *L'Ami de l'économie aux amis de l'humanité sur les pains divers dans la composition desquels entre la pomme-de-terre, ainsi que sur les nouvelles appropriations d'un de ses produits, le parenchyme, dont la conversion en pain offre la solution du plus important problème de l'économie alimentaire des classes indigentes; observations communiquées à la Société royale et centrale d'agriculture* (Paris, 1816), pp. 52ff., chapter “Des soupes économiques”.

³ See above, p. 191.

⁴ “Rapport au Ministre de l'intérieur par le Comité général de bienfaisance sur la soupe de légumes dite à la Rumford, publié par ordre du Ministre par Antoine Alexis Cadet-de-Vaux”, in: *Décade Philosophique*, XXVII (1801), p. 199. The item of about 1680 is mentioned also in the bibliography by Camille Granier, *Essai de Bibliographie Charitable* (Paris, 1891), p. 625. It is ascribed to a cleric by the name of Bichon and was presumably printed at Saintes. But since the title is nowhere given, the book could not be identified or located.

the use of barley as a human food? What he has to say about this grain in the *Essays* is not illuminating in this respect, although he mentions the nutritive value of Scotch broth as being generally known.¹ Interestingly enough, Rumford's barley soup was improved in England by Sir Thomas Bernard, about whom more will be said later, who suggested that in lieu of milled barley, crushed barley be used so that the bran also went into the soup, adding to the caloric content.²

II

Rumford's set of achievements impressed the leading philanthropists of his time, and soon it started to migrate over almost all Western and Central Europe. This statement must be taken with a grain of salt, though. What migrated was not always the set of achievements *in toto*, i.e., the fuel-saving hearth in a public soup kitchen distributing to the working and indigent poor a particular barley-pea soup or barley-potato-pea soup. In some cases only one of the constituent elements was transferred, namely, the fuel-saving hearth, or the idea of a soup kitchen for the poor, or the recipe with some minor or major alterations; in others it was a combination of some of these elements.

As a matter of fact, Rumford himself was his best publicity agent, to use an anachronistic term, and the most important influence carrier. He was proud of the "many persons of the most respectable character" from all over Europe who visited the Military Work House (House of Industry), and he can not have failed to impress them with what he thought was the essential of his achievements.³ Such travelers were bound to become more or less efficient salesmen. Moreover, Rumford pressed forward through his own writings, which came out in several editions and were translated into German, French and Spanish.⁴ Last not least, he not only built the kitchen in the Military Work House, but also installed his fuel-saving hearth in others in Munich and its environment which served as object lessons. When in 1793-94, after an

¹ *Essays*, I, pp. 290ff.; Harvard Collection, V, pp. 254-258; Louis Du Bois, *Des Moyens de diminuer la consommation des substances par l'emploi économique des substances alimentaires* (Châtillon-sur-Seine, 1817), p. 51; Eden, *op. cit.*, I, pp. 499, 527; and *idem*, "Soup for the Poor", in: *The Annual Register of a View of the History, Politics and Literature for the Year 1797* (London, 1800), p. 441.

² *Essays*, I, p. 217; Harvard Collection, V, p. 192.

³ *Essays*, I, p. 244; Harvard Collection, V, p. 214. As to the reaction of an individual visitor see *The Diary and Letters of Gouverneur Morris*, II, pp. 332-341. Another visitor was Abraham Joly from Geneva; see below, p. 204.

⁴ See pp. 186f., note 3. Karl Marx contemptuously mentions Rumford's "cook-book" (the *Essays*) in *Das Kapital*, I, chap. 22, sec. 4.

illness, he went to Italy a convalescent, he took advantage of a stay at Verona to install his fuel-saving hearth in two hospitals which were enabled thereby to save six units of fuel out of seven formerly used.¹ When we come to discuss the adoption of the Rumford achievements in England, we shall meet again his personal influence on the development.

Before so doing, the author must describe the happenings in Germany outside of Munich. As a matter of fact, an older incomplete bibliography² on the Rumford soup kitchen contains a few titles published after 1800, which indicate that Rumford's ideas had some influence in Germany. Yet one should remember that we deal with the period of the Napoleonic wars which, of course, was not an auspicious one for eleemosynary efforts in that country.

It is certain that by 1800 there was a soup kitchen in Hamburg run by the *Armenanstalt*, which in the course of one year fed, all told, 15,345 people, issuing on an average 2000 helpings per day. The ingredients of the soup varied and consisted of potatoes, yellow and green peas, beans, barley, flour, bread, meat, or fat on meatless days, vinegar, and salt. Another soup kitchen seems to have worked at Elberfeld at about the same time.³ In the Rhineland, then under French control, there were in 1802 one soup kitchen each in Aachen and Cologne. Figures for Aachen are not available; but the kitchen in Cologne is supposed to have distributed a total of about 27,000 soups in the course of about one year and, on an average, 386 per day. It dispensed

¹ Chapter V of his „Essays on the Management of Fire and the Economy of Fuel”, in *Essays*, II, pp. 3ff.; Harvard Collection, II, pp. 426ff. As to the Verona episode, see *Essays*, I, pp. 110-112, 148, 149; Harvard Collection, II, pp. 431, 432.

² Rumford, *The Complete Works* (Boston, 1874), IV, pp. 819, 820.

³ Ausführlicher Unterricht zur Bereitung der Rumfordschen Spaar-Suppen, nebst einer neuen Methode, wie diese Suppen durch eine aus Knochen bereitete wohlfeile Gallerte kräftiger zu machen, und den Mitteln, wie solche am leichtesten einzuführen sind [...] Ingleichen: des Bürger Casterins Anweisung aus den Kartoffeln die Hälfte mehr Mehl, als auf die bekannte Weise zu gewinnen und die Kartoffeln von einer Erndte zur andern aufzubewahren, Neue Aufl. (Leipzig, 1805?). As to Hamburg, see p. 13. Also Delessert, *Sur les fourneaux à la Rumford* (see below, p. 205, note 2), p. 31. The German item is of limited value, knowledge being derived mostly from Delessert whose Paris soup kitchen its author had visited and whose pamphlets he had read. As to Delessert and his kitchen, see below, p. 205. In the Stadtarchiv, Munich, there are the following pertinent items: Joseph Maria Friedrich Piaggino, *Der Hofkammerrat Piaggino und General Tompson [sic] oder das Münchner Armeninstitut* (Strasbourg, 1791); *Apologie der Rumfordschen Suppenanstalt für Seelsorger gegen grundlose Invektive des Freysinger Wochenblattes* (n.p., 1804); *Die Rumfordsche Armen-Verpflege-Anstalt in München* (München, 1846).

the Rumford soup, but prepared it on an ordinary hearth.¹

The author can speak with greater assurance and in more detail on the English development, in the beginning of which Rumford himself played a large role, particularly through his *Essays*. So great was the interest that at least some of them were individually published in advance;² and the impression which they made must have been extraordinary. As early as 1797 lengthy quotations from one of the *Essays* can be found in what was then the standard work on the laboring poor, Sir Frederic Morton Eden's *The State of the Poor or an History of the Labouring Classes in England*.³

Two aspects of Rumford's set of achievements impressed high-ranking English gentlemen of the period, the fuel-saving hearth and the idea of a soup kitchen from which the indigent and laboring poor could be fed adequately at very low expense. To promote the former, Rumford himself fitted up in the house of Sir John Sinclair, Bart., president of the Board of Agriculture, a kitchen containing one of his hearths which was open to public inspection at all hours of the day.⁴ Moreover in March 1796 another kitchen containing Rumford's hearth was built under the Count's supervision in the Foundling Hospital in London, with the result that its fuel consumption dropped from 35 to 10 "chaldrons" a year, while the number of cooks could be reduced from 2 to 1. In Christ's Hospital where this kitchen was copied, the fuel consumption dropped from 9 to less than 1 bushel of coal per day.

Then the fuel-saving hearth came into private industry. In the same year of 1796 a tavern keeper had been invited to feed Irish workmen employed on an expansion of the Foundling Hospital, and a kitchen was provided for him containing the Rumford hearth. In 1797 he struck out for himself, when the work at the hospital first slowed down and was finally stopped because of the war then under way, and when subsequently the workers left the area. In his new shop, established in

¹ Rapports et Comptes Rendus du Comité Central d'Administration des Soupes Economiques de Paris pendant l'An X (Paris, An XI (1803), table; henceforth to be cited as Rapports. The same kind of information can also be found in Recueil de rapports, de mémoires et d'expériences sur les soupes économiques et les fourneaux à la Rumford; suivi de deux mémoires sur la substitution de l'orge mondé et grué au riz, etc. Par les citoyens Cadet-Devaux, Decandolle, Delessert, Money et Parmentier (Paris, An 10 (1801)).

² Of the advance publications some are available in Houghton Library, Harvard University. On that of Essay IV it is stated: "But as some of the essays are upon subjects highly interesting at the moment, each essay will be published separately as soon as it comes from the press."

³ (London, 1797), I, pp. 527-531. The quotations refer to the essay "Of Food", in: *Essays*, I, pp. 189ff.; Harvard Collection, V, pp. 169ff.

⁴ *Essays*, II, p. 151; Harvard Collection, II, p. 432.

a more suitable area he installed a Rumford hearth which enabled him not only to provide his customers at a cheaper rate than usual, but also to become a kind of wholesale purveyor for public buildings, poor-houses, and some land-owning gentlemen. Regardless of his low prices he made a reasonable profit which he credited to the Rumford equipment.¹ Finally, in 1800 or 1801 Rumford installed his hearth in an Edinburgh hospital which was enabled to operate thereafter with one sixth of the fuel which it had needed earlier.²

Just as Rumford himself became the main promoter of his fuel-saving kitchen-hearth, he also became the exponent of the second element of his string of achievements. That is, wherever he went, he preached that the best and cheapest way to alleviate the conditions of the laboring and indigent poor was to provide them with cheap and nutritious food out of a public kitchen. The soup was to be distributed gratis to the indigent only, while those able to work should pay for it at a rate cheaper than the market rate. Help would thus be provided without inviting laziness.³

The idea that there was no cheaper method of relieving the poor than by establishing soup kitchens caught on in England. It was recognized that in no other way could a guinea contributed for humanitarian purposes go so far. As a matter of fact, it was figured that one guinea would supply 504 persons with one hearty meal per day. Here one finds the explanation of the astonishingly quick adoption of the new kind of institution.⁴ Moreover the fact that meal tickets could not be abused by the recipients, while alms given in money could, proved also attractive.

On the other hand, new notions came into play when Rumford's

¹ Society for the Bettering of the Condition and Increasing the Comforts of the Poor, *The Reports*, I (London, 1798), Nos XII and XXVIII, pp. 89ff., especially 89, 95, and 205ff., respectively. This series will henceforth be cited *Reports*.

² *Bibliothèque Britanique*, series Sciences et Arts, XX (1802), pp. 207, 208. One finds cited a Dutch contemporary item on the Rumford hearth which is not accessible to me: *Iets voor de Armen: zesde stuk; met de afbeelding van een Rumfordsche Spaaroven* (Amsterdam, 1801).

³ This program is brought out particularly clearly in his "Letter to Reverend Dr. Majendrie of Windsor", in *Reports* II (1799), Appendix, pp. 24ff.

⁴ *Suggestions Offered to the Consideration of the Public, for the Purpose of Reducing the Consumption of Bread Corn; and Relieving at the same time the Labouring People by the Substitution of other Cheap, Wholesome, and Nourishing Food; and especially by Means of Soup Establishments and in Particular to the More Opulent Classes of the Community* (London 1799, 2d edition corrected and enlarged, London 1800), p. 2. Incidentally, there was published a Swedish item by O. Swartz, "Rumfordska Soppan", in: *Almanach för Året 1815 Till Stockholms Horisont*. The item is not accessible to the author.

achievements were adopted in England. Partly they changed, partly they supplemented Rumford's original ideas. Rejected was his suggestion that soup kitchens should become permanent establishments. They were taken over only as temporary measures of relief when food was scarce and expensive, and so were tied in with more traditional relief measures.¹ Added was the hope that the new soup kitchens would exert an educational influence, i.e., that the laboring poor or their wives, respectively, would learn to prepare better meals, once they had tasted the savory, inexpensive food at a soup kitchen.²

The first English soup kitchen is supposed to have been established at Spitalfields (London), in 1795.³ Patrick Colquhoun had a hand in this venture and thereafter became one of the promoters of the new charity. Colquhoun (1745-1820) was descended from an outstanding Scottish family. Orphaned at an early age, he went to Virginia as a mere youngster and he seems to have been active in the tobacco trade. Successful, he returned home in 1766, settling in Glasgow, then one of the centers of that trade. Besides being a merchant himself, he established in that city one of the earliest British chambers of commerce and as its chairman looked out for the city's trade and industry. In 1789 he moved to London, where he became a city magistrate. Proving himself to be a courageous official devoted to his public office, he was simultaneously also an enlightened writer on political, social, and economic questions. His recent biographer, Martin Joseph Faigel, has shown him to have been also a shrewd, if not sharp, businessman.⁴

¹ Reports, I, No XXXIX, p. 311.

² A contemporary little cookbook *The Family Receipt Book or the Cottager's Cook, Doctor and Friend* (Oswestry, 1817) brings out what contemporary humanitarians wanted poor people to cook and eat. Equally telling is *Hints for the Relief of the Poor* (London, 1795), pp. 8ff. On the other hand, if one wants to know what the upper classes ate in contemporary England, one may peruse James Woodforde, *The Diary of a Country Parson, 1758-1802* (London, World Classics, 1949). For a modern scholarly treatment of the subject, see J. C. Drummond and Ann Wilbraham, *The Englishman's Food: A History of Five Centuries of English Diet* (London, 1939), chapter X: "Eighteenth-Century Food". There are references to Rumford on pp. 307, 349, 392, 423.

³ The description of a soup kitchen at Spitalfields in Reports, I, pp. 303ff., does not refer to the one of 1795 but to a later one, set up in 1798. The Quakers had a hand in it.

⁴ There are two biographies of Colquhoun, an old one written under the pseudonym of Iatros for the *European Magazine*, LVIII (1818). It is worthless in the context of this paper; see pp. 305, 409. Realistic is the unpublished Harvard honor thesis of 1959 by Martin Joseph Faigel, *An Introductory Life of Patrick Colquhoun, 1745-1820*. Of course, there is also the article in the *Dictionary of National Biography*.

In the fall of 1795, Colquhoun was instrumental in organizing at Lloyd's Coffee House a Committee for the Relief of Industrious Poor of the Metropolis, whose self-set task, besides another one, was the establishment of soup kitchens.¹ The one at Spitalfields, just mentioned, was the outcome. Colquhoun must have had at that time a kind of mystic belief in the benefits of eating soup, writing, as he did in July 1795: "It is wonderful what economy produces in a well-regulated family where soups and vegetables make a part of the bill of fare."² A pamphlet which Colquhoun wrote in 1795, *An Account of the Meat and Soup Charity*, dealing obviously with the Spitalfields venture, is cited in the *Dictionary of National Biography*.

In 1797, the Committee, organized in 1795 at Lloyd's Coffee House, was revitalized and, again under Colquhoun's leadership, assisted in the establishment of soup kitchens, besides whatever else it undertook. Colquhoun acted as the superintendent.³ The fact that the London poor were concentrated in a few Eastern parishes, while the rich lived in others, led to great inequalities in poor relief; it made private action supplementing the official ones indispensable. Soup kitchens were to be a means to that end. So Colquhoun reported: "after various consultations and enquiries, and after assembling twenty cooks situated in the different parishes, it was found expedient to confine the issues to a species of soup called Leg of Beef Soup and to Pease Soup because it might have defeated the object of the Charity to oppose any new messes to the prejudices of the people to which they were not accustomed."⁴

We shall speak later about the organization of the "Charity". Here

¹ This Committee received until March 10, 1800 a total of £10,108.19.0. Twenty-three corporate bodies contributed about one third of this amount; the rest came from 540 individual contributors. Some of both categories contributed twice. See General Report (see below, p. 203, note 1), p. 3.

² Thomas Joseph Pettigrew, *Memoirs of the Life and Writings of the late John Coakley Lettson with a Selection from his Correspondence* (London, 1817), II, p. 363.

³ Charles Wright and C. Ernest Fayl, *A History of Lloyd's* (London, 1928), p. 208. They cite *The Report of the Committee at Lloyd's Coffee-House for the Relief of Industrious Poor of 1800*. It is identical with the General Report cited in note 1, as a page inserted in the latter item indicates.

⁴ [Patrick Colquhoun] *An Account of a Meat and Soup Charity established in the Metropolis in the Year 1797 with Observations relative to the Situation of the Poor with regard to food and [...] by a Magistrate, i.e., Colquhoun*. His authorship cannot be doubted. On p. 6 one finds the statement that the writer of the tract and the superintendent of the charity were identical and on p. 15 Colquhoun is indicated as the one on whose order payments are made. For the quotation, see p. 5; Reports, I, pp. 228, 236.

it may be stressed that the quotation points to a disagreement among the members of the Committee; some of whom seem to have desired the adoption of the Rumford soup. This suggestion was obviously turned down, because it might have frightened away potential customers who would refuse to eat an outlandish dish which they had not tasted before.¹

The man who was second only to Colquhoun in spreading the Rumford gospel in England, and like the latter was instrumental in transferring some of the count's achievements to that country, was Sir Thomas Bernard, Bart. (1750-1818). The son of a colonial governor of New Jersey and later of Massachusetts, he was educated in America by a clergyman, attended Harvard College for a while, and in 1760 returned with his father to England. There he studied law, but was none too successful in this profession. Therefore he retired and devoted the rest of his life to "improving the utility and welfare of the lower orders". First, he took an interest in the Foundling Hospital of London, located close to his residence, and as its treasurer, elected in 1795, began promoting Rumford's ideas as to food and fuel. Both men were in personal contact, while Rumford was in England. The establishment of a Rumford kitchen in the Foundling Hospital, described above,² was Bernard's work. Next he tried, albeit unsuccessfully, to set up one at the Marylebone workhouse; but he succeeded with another near Rippon in Yorkshire. A further success was the establishment in October 1796 of a soup kitchen at Iver, Buckinghamshire, which was run by a woman who profited from the operation. Thence the soup kitchen came in 1797 to Langby, situated in a neighboring county. Bernard was also instrumental in founding with others the Society for Bettering the Condition and Increasing the Comforts of the Poor, among whose objects was the establishment of soup kitchens.³

The development of the English soup charity between the seasons 1796-97 and 1799-1800 is shown by the following figures: In 1796-97 there were 20 cook shops subsidized by the Lloyd's Committee. They relieved about 10,000 people by distributing 184,581½ pints of soup

¹ So-called leg-of-beef soup seems to have become the standard for the English soup kitchens. A recipe can be found in the above Suggestions, p. 16. It contained, besides the meat, peas, barley, onions, salt, the typical ingredients of the Rumford soup.

² See above, p. 198.

³ James Baker, *The Life of Sir Thomas Bernard, Baronet* (London, 1819), pp. ix, 11-15, 33, 43; for a short biography of Bernard, see *Dictionary of National Biography*. As to the soup house at Iver, see Reports, I, No 18, pp. 140ff. Much material on the Society for Bettering the Condition and increasing the Comforts of the Poor is in *ibid.*, I, pp. 413ff.

at a subsidized price, the consumers paying one half of the cost, the Lloyd's Committee the other half. (Its policy is evident from the last statement.) In 1797-98 three eleemosynary "societies" relieved about 40,000 people. The number of soups (pints) distributed was 481,336. The consumers paid a total of £1,002.12.0, the Committee of Subscribers to a Fund for the Relief of Industrious Poor, Resident in the Cities of London and Westminster, the Boroughs of Southwark and the Several Parishes of the Metropolis, adding £895.12.0, the amount of local contributions not being reported. It was probably considerable. This Fund was obviously the outgrowth of the earlier Lloyd's Committee; but its policy was a different one and will be described.¹ In 1798-99 the corresponding figures were 44,000 people relieved by four "societies"; the number of soups (pints) distributed, 750,918, the consumers paying £1,564.6.3, the Fund contributing £1,903.0.7. The total of local contributions is again not reported.

During the inclement season of 1799-1800 there worked in Greater London 22 soup kitchens which temporarily fed such poor as were recommended to them. These paid one penny per soup, while the rest of the cost was made up by local contributions in the parishes and in one case "by the Jewish nation". Moreover the shops were aided by the Committee of Subscribers to the Fund, just mentioned. In addition there were eighteen small soup houses working the year round, which dispensed soup at 3 pennies per helping to all applicants. They had received aid from the above Committee for the building and equipment but none from other sources to lower the price of the soup. These shops were set up to help people in distress but unwilling to acknowledge their plight and to accept quasi alms. The total number of soups issued by these eighteen soup houses up to February 1800 was 300,000.² Finally, there were four soup kitchens working only in the inclement seasons, which did not receive any aid from the fund and were financed by local contributions alone. That is to say, in the fall, winter, and spring of 1799-1800 there operated in Greater London all told 44 soup kitchens.

The total number of persons relieved was about 148,000; the number of pints served amounted to 4,780,604; the recipients themselves, paying one or three pennies, respectively, gave £11,154.9.2. The contribution of the Fund was £15,463.6.9. That implies that there were raised by the payments of the benefited poor and the contribution of the eleemosynary fund £26,617.15.11. Subsidies of the Fund were for

¹ See their General Report (London, 1800), pp. 5-7. As to their policy, see below, p. 204.

² General Report, Appendix I.

two purposes: to defray a part of the expense of the buildings and equipment and "in aid of their [the soup kitchens'] funds". That seems to mean that the organization also enabled the kitchens to sell the soups cheaply because they received a part of their circulating capital from the fund. (We have seen that the 18 shops working the year round did not receive the latter kind of aid.) Local contributions to 43 out of the 44 soup shops, both in money and kind (potatoes, herrings), came to £9,142.5.6.

At least some of the soup kitchens, besides dispensing the soup, sold inexpensive food stuffs at subsidized rates, especially potatoes, rice, herring, and pork. This holds true also of the eighteen soup shops working the year round; of course, since they received smaller aid, their prices were higher than those of the others.

Unfortunately, the figures for the years 1796-97 to 1799-1800 are neither complete nor entirely comparable. But what comes out clearly are the magnitudes involved. They are certainly impressive.

Swiss philanthropists became acquainted with Rumford's achievements as early as 1796 when the Geneva periodical *Bibliothèque Britannique, Extrait des ouvrages Anglais périodiques* brought out copious excerpts from Rumford's *Essays*.¹ These impressed the Swiss physician Abraham Joly (1748-1812), head of the *hôpital général* at Geneva, and at one time, also the president of the French controlled *Conseil Général du Département du Léman*. Joly decided to travel to Munich to study Rumford's institution on the spot. Quite enthusiastic, on November 25, 1797, he addressed an overoptimistic letter to the *Bibliothèque Britannique*.² In 1800 a subscription was successfully opened under his influence, an administrative committee elected, and a soup kitchen established in Geneva which distributed 1200 helpings per day. The demand was such that in the same year a second kitchen was opened, and during the season 1800-01 a total of 66,970 helpings were made available. But in the following winter season the demand dropped to 31,087 helpings, and in 1802 the kitchens remained closed but kept available on a standby basis.³ Obviously the worst of the temporary food scarcity was gone. In consequence of the experiences of the Geneva

¹ Series Literature, Vol. I, No 4, March 1796, pp. 499ff.

² A note on Joly is in the *Dictionnaire Historique et Biographique de la Suisse*. His trip to Munich is mentioned in *Ausführlicher Unterricht* (see above, p. 197, note 3), p. 17. His letter of 1797 could not be located in the original periodical. For a translation into English, see George E. Ellis, *Memoir of Sir Benjamin Thompson, Count Rumford with Notices of his Daughter* (Philadelphia, 1871), pp. 453-455.

³ *Rapports*, An XI (1803), p. 20.

soup kitchens, the hospital of that city adopted a Rumford hearth, and soup kitchens were also set up in Lausanne and Neuchâtel.

Under the inspiration of the Geneva model the soup kitchen came to Lyon in 1801; it distributed 50,000 portions, of which 23,760 were paid for by the consumers. Yet this line of influence was exceptional; the French development in the field began in Paris independently of Geneva. On the other hand, as in Switzerland, the above-mentioned excerpts from Rumford's *Essays*, published in the *Bibliothèque Britannique*, started the ball rolling. In France it was relatively easy to take action, since there were precedents. During the *ancien régime* convents had distributed soups to the poor congregating at their doors. By 1800 the renowned banker Benjamin Delessert (1773-1843), assisted by his friend A. P. Decandolle, played the initiating role. His father, a descendant of farmers in the *Pays de Vaud* (Switzerland), had gone first into the silk business, later into banking, where the son, born in Lyon, joined him. The latter rose rapidly and as early as 1800 became a regent of the *Banque de France*.¹ In the winter of 1800 Benjamin Delessert established the first soup kitchen in Paris, and promoted the charity by his writings,² being also helpful to visitors seeking information. As a matter of fact, Delessert was well prepared for the role he was assuming. Besides being a banker, he was also a manufacturer, and thus had an opportunity to observe personally the plight of the contemporary French workman. Moreover at that moment he was also the administrator of the *Bureau de Bienfaisance* of his district gaining insight into public welfare. His achievement, to be described in some more detail forthwith, was quickly recognized, and we find as early as 1800 a recommendation to follow suit in the *Décade Philosophique*.³

Disregarding here the fact that Delessert's kitchen dispensed rations of about twenty-four ounces, as against Rumford's twenty, his institution at the Rue du Mail came close to being a copy of the Rum-

¹ Dictionnaire de Biographie Française, X (Paris, 1965); Etienne Join-Lambert, Benjamin Delessert, son œuvre législative et sociale, Thèse (Paris, 1939), pp. 40ff.; for the following, see p. 45.

² Benjamin Delessert, Sur les fourneaux à la Rumford, et les soupes économiques (Paris, An VIII (1800)); Notice sur les soupes à la Rumford établies à Paris, rue du Mail no 16 (An 8 (1800)). This item, not accessible to me, is probably a reprint of the article cited below, p. 206, note 1.

³ XXVI, p. 500. Antoine-Alexis Cadet de Vaux (1743-1828), a pharmacist with a permanent interest in matters of food and the founder of the *Journal de Paris*, published two letters in this paper recommending the soup charity. Delessert, Sur les fourneaux, pp. 19, 20, 27. Biographical data on Cadet de Vaux are in Dictionnaire de Biographie Française. He became for a time président de la Société des soupes économiques.

ford model. Indeed, certain passages in his pamphlet *Sur les fourneaux* (pp. 13-19) follow closely Rumford's own arguments. His kitchen had Rumford's efficient hearth and issued the latter's barley-potato-pea soup with only insignificant changes. The soup, of which 300 helpings were distributed every day, consisted of:

barley	1 ounce or	30 grams	
vegetables	1	„ „	30 „
potatoes	5	„ „	153 „
bread	1	„ „	30 „
water	16	„ „	490 „
salt	$\frac{1}{4}$	„ „	8 „
onions	$\frac{1}{4}$	„ „	8 „
fat	$\frac{1}{8}$	„ „	4 „
	<hr/>		<hr/>
	24 $\frac{5}{8}$	„ „	753 „

The vegetables used were peas, beans, or lentils, and instead of onions, celery or herring might be used for seasoning. The 300 helpings were cooked over 24 $\frac{1}{2}$ kilograms of wood; expressed in money terms and compared with the cost of fuel consumed in Paris hospital kitchens, the advantage was 18 :1. Thus prepared the cost of the soup in the Delessert kitchen was seven times cheaper than that of the inferior food at the former.¹

After Delessert's start, soup kitchens multiplied in Paris. In 1800 there were two, although the second one, established by one Gilet in the Faubourg Saint Antoine, did not last long. A third one, in the Rue Poissonnière, the attempt of one Colibert, had to be abandoned for lack of public support.² The movement gained momentum in 1800-01 when the number of Paris soup kitchens was seven; while in 1801-02 the number rose to twenty. This growth was due in part to the backing of leading persons, such as Mme Joséphine Bonaparte, Mathieu de Montmorency, the politician, Chaptal, minister of the interior, and others; and last but not least to the official approval of the First Consul. In the third season 1,613,199 helpings were distributed, while the kitchens themselves had been established at a total cost of 18,336 francs and 7 centimes and their current expenses were 121, 851 francs and 8 centimes. The average price at which the soup was made available was 7 $\frac{1}{2}$ centimes, whereas Delessert had sold soups at his kitchen in the

¹ "Notice sur les soupes de Rumford établies à Paris rue du Mail No 16", in: *Journal de Physique, de Chimie, d'Histoire Naturelle et des Arts*, L (1800), pp. 200ff.; Join-Lambert, *op. cit.*, p. 45.

² Delessert, *Sur les fourneaux*, p. 34; see also below, p. 212, and also p. 214, note 1.

Rue du Mail at 10 centimes (two sous). He had issued tokens at 15 and 45 sous for a certain number of them, the latter amount buying one soup per day for one month.¹

The quick development of the soup charity made organizational change indispensable. A *Comité Central de la Société des Soupes Economiques* was established to coordinate the activities of the soup kitchens. In the fall of 1802 the society changed its name to *Société Philanthropique* and widened its program, a development which somehow resembles that of the original Lloyd's Committee. As *Société Philanthropique*, the society had a long useful career. But after the peak was reached in the season 1801-02 the demand for soups, as in Switzerland, declined, an indication that the worst of the emergency had passed. Yet the soup charity was urgently demanded again in the seasons 1811-12, after the crop failure of 1811, and again in 1813-14 at the time of the occupation of France by the allies, when a total of about 4,000,000 soups were issued in Paris.²

Outside of Paris, in France proper – i.e., not counting the *départements* of the Dyle (Belgium), Léman (Switzerland) and Roer (Germany), then temporarily under French control – nineteen *départements* had established soup kitchens in 1801; namely, Ardennes (Sédan, 1), Aisne (Saint Quentin, 1), Bas-Rhin (Strasbourg, 1), Bouches du Rhône (Tarascon, 1), Eure (Evreux, 1), Eure et Loir (Chartres, 2), Gard (Nismes, 1), Gironde (Bordeaux, 2), Hérault (Montpellier, 1), Isère (Grenoble, 1), Loiret (Orléans, 1), Lot et Garonne (Agen, 1), Manche (Saint Lô, 1), Moselle (Metz, 1), Oise (Beauvais, 1), Deux-Sèvres (Niort, 1), Rhône (Lyon, 1), Vaucluse (Avignon, 1). In these nineteen *départements* there were 21 soup kitchens.³ The number of soup servings distributed varied in 1802 between 1300 at Tarascon and 98,000 in the two kitchens at Chartres (disregarding the about 1,600,000 at Paris).⁴ The cost of the soup varied in price between 4 and 16.2 centimes (this high figure is recorded in Strasbourg), but the weight of the helping varied also between 73 and 150 decagrammes. The median and

¹ Rappports, p. 40; Delessert, *Sur les fourneaux*, pp. 26,27; Join-Lambert, *op. cit.*, pp. 45, 46. Delessert felt strongly that the tokens should be sold at a place away from the kitchen, thereby making it impossible for the kitchen personnel to distinguish between the indigents who received the soup gratis and the workmen able to purchase their food.

² Join-Lambert, *op. cit.*, p. 49.

³ Rappports, table.

⁴ According to "Notice sur les Soupes de Rumford établies à Paris, rue du Mail", in: *Journal de Physique, de Chimie, d'Histoire Naturelle et des Arts*, L (1800), p. 200, there was a soup kitchen in Marseilles which, however, does not appear in the table of the Rappports.

the mode, respectively, were for the former 8.8 and 10, and 82 and 73 for the latter.¹ In all the *départements* the soups were distributed free of charge to indigents and prisoners, except for the *département* Eure et Loir, where at Chartres workers of a local manufacture also received the soup gratis, as did those in the Munich Military Work House. The rest of the soups were sold at varying prices (the information seems too incomplete to be reported); while in the *département* Gard there was no gratis distribution at all.²

III

The way in which the "soup charity" was organized, established, and financed in the various countries throws light on the respective national cultures and therefore deserves close attention.

In Germany the idea came from a high official, and officials (*die hohe Obrigkeit*) did the planning, set up the welfare organization, and managed it. Under the name of *Armen-Instituts-Deputation*, a committee of high officials was formed which policed the poor of Munich, handled the funds, distributed the alms, and provided the soup. It consisted of the presidents of the council of war, of the council of the supreme regency, of the ecclesiastical council, and of the chamber of finances. Each one of these gentlemen brought with him a counsellor of his authority to do the actual work with the assistance of a secretary, a clerk, and an accountant employed by the Deputation. On the district level, priests, surgeons, physicians, and apothecaries cooperated in their professional capacities, but there was no one connected with the administration of welfare who by good deeds wished to gain a place in paradise. Under these circumstances it comes rather as a surprise that, drawing general conclusions from his Munich experience, Rumford

¹ In Belgium, then under French control, there were by 1800 two soup kitchens in Brussels and one at Vilvorde, all located in the departement of the Dyle.

² The British Museum owns a booklet of 1803 issued by the Real Sociedad Económica Matritense de Amigos del Pais, *Años hace que el grande ingenio del Conde de Rumford*. It contains a proposal to establish cheap meals for the poor of Madrid on Count Rumford's principles. Actually, the ladies' junta of the Spanish society, just mentioned, distributed *comidas económicas* according to Rumford's recipe; see Robert Jones Shafer, *The Economic Societies in the Spanish World* (Syracuse, 1958), p. 93. Another Spanish booklet of the same period deals with the Rumford hearth: Julian Antonio Rodriguez, *Método de economizar el combustible en nuestras casas, ó descripción de dos cocinas económicas, aplicadas á los usos que hay en España de componer las comidas: todo ello fundado en las mismas teorías físicas de que se sirvió el conde de Rumford para la invención de las cocinas públicas y particulares establecidas en Munich, Lóndres, etc.* (Madrid, 1804).

himself concluded that charity would not work without the cooperation of private citizens with the government taking the initiative. "A certain number of persons chosen from the middling classes of society – reputable tradesmen in easy circumstances, heads of families, and others of known integrity and of humane dispositions" had to be brought in; and their confidence as that of the public at large had to be secured by regular accounting reports. This was especially necessary in order to secure financial cooperation, for welfare could not be financed by taxes alone.¹

So much for the administration of Bavarian poor relief as organized by Count Rumford. Needless to say, the kitchen which he had set up had to be managed, and this was done as follows. Foodstuffs were bought in large quantities on the public market and stored in a room set aside for that purpose. There they were under the supervision of a storekeeper. Each day he issued the needed quantities of flour to the baker and of the other foodstuffs to the chief cook. Inspectors, not connected with the kitchen, supervised the issue of the flour and the foodstuffs, their use, and the distribution of the soup. Those entitled to be fed received tokens daily. They handed these to a clerk when entering the dining hall who, in turn, gave them the piece of bread which was their due. Upon showing the bread, they received the soup.²

While Rumford was planning and preparing the decisive action of January 1, 1790, funds for the relief of the poor were in existence but most of the money was being misapplied, or had been wasted, and it was considered impolitic to try to wrest whatever remained from those who controlled it. Instead, it was decided to make use of the following sources: first, monthly allowances from the elector's private purse and from the public treasury; secondly, voluntary contributions of individuals which, however, were not solicited prior to successful action; thirdly, legacies which could be expected from philanthropists and fourthly, certain revenues, such as tolls or fines appropriated to that use.³

Between 1790 and 1794, i.e., in five years, total expenditures for the relief of and policing the poor amounted to 307,596 fl. of which 51,000 fl. were spent on the soup kitchen and on premiums to efficient workers at the Military Work House. That is to say, as far as the

¹ Essays, I, pp. 27ff., 118f.; Harvard Collection, V, pp. 24ff., 104. According to Dr Hans Jaeger's report there are in the Staatsarchiv für Oberbayern in the records of the Generallandesdirektion such on Stiftungssachen. They contain material on the founding and the management of the *Armenanstalt*. There is also a package labeled "Rumfordische Suppenanstalt".

² Essays, I, pp. 57, 59, 60; Harvard Collection, V, pp. 50, 52.

³ Essays, I, pp. 30, 31; Harvard Collection, V, p. 27.

kitchen is concerned, the picture is blurred; but certainly most of the 51,000 fl. went into the distribution of soups.

Equally interesting is the material on the receipts of the Institution for the Poor; again only the five-year total is given:

Receipts of the Institution for the Poor at Munich 1790-1794¹

	Florins
From monthly voluntary donations of the inhabitants, including 100 florins given monthly by his Most Serene Highness the Elector out of his private purse; 50 florins monthly by the Electress Dowager of Bavaria, and 50 florins monthly by the States of Bavaria,	178,815
From the Public Treasury a stated monthly allowance intended principally to defray the expence of the police of the city,	81,200
From voluntary donations, particularly destined by the donors to assist the Poor in paying their house-rent,	4,415
From voluntary and unsolicited donations from the foreign merchants and traders assembled at Munich at the two annual fairs,	1,756
From the courts of justice, being fines for certain petty offenses,	1,023
From the magistrates of the city; being the amount of sums received from musicians for licence to play in the public houses,	5,989
From the poor's boxes in the different churches,	1,521
From the poor's boxes at inns and taverns,	665
From private contributions sent to the banker of the Institution, under feigned names, devices, & c.	6,304
From legacies,	21,673
From interest of money due to the Institution,	272
From cash received in advance,	9,400
From sundries,	7,265
<i>Total Receipts</i>	320,298

The table shows that the most important item among the receipts were voluntary donations, including those of the Elector, of another member of his family, and of the Bavarian estates.

On top of that, Rumford was highly successful in acquiring the financial backing of the Munich citizenry. It was mentioned earlier that beggars had laid a heavy contribution on the community at large and particularly on certain small tradesmen. Relieved of this pressure, the public was glad to enter subscriptions for welfare purposes and the tradesmen concerned, bakers, butchers, and tavern keepers, were willing to put at the disposal of the soup kitchen stale bread, bones, meat of small value, and other surplus food, especially soup, sold at the low-class eating places, respectively. The authorities put up proper and clean containers in the shops to assemble such gifts, and picked

¹ 12 guilders (florins) are equal to 1£, Essays, I, Appendix; III, pp. 428-431; Harvard Collection, V, pp. 350, 351.

them up regularly every day. Only the left-over food of tavern keepers proved useless.

The German start is clear beyond doubt: the administration of the Munich soup kitchen was firmly in the hands of the government, while private citizens helped finance the charity. It is not certain that this holds true for the later German soup kitchens also, i.e., those organized by 1800. Yet an anonymous German author writing at that time argued the problem of publicly owned and administered versus privately owned and administered soup charities, and pleaded for the latter. Whether or not his advice was heeded must remain an open question.¹ Rumford himself would have preferred public administration because it would facilitate the introduction of new nutritious foodstuffs or dishes.²

Turning to England, we find a completely different picture. Everything – initiative, planning, administration, financing – was the work of private citizens. When leading philanthropists decided to establish a soup kitchen, they called a meeting of citizens, residents in the parish concerned, submitted a plan, and asked for subscriptions. On finding favorable reaction, they organized the subscribers into what was called a “society”. Administrative committees were elected whose members accepted the obligation of supervising in turn, on certain days, the operations of the venture. They paid fines if they neither attended nor sent substitutes. A “society” would work successfully if there were between 400 and 500 subscribers. Each subscriber of one half a guinea or of larger amounts received six tickets for distribution among worthy poor in distress, known by or recommended to him. If a subscriber was not aware of eligible families, he returned the tickets to the secretary of the “society” for proper disposal. There was usually set up first a temporary committee, acting as a “building and repairing committee”, to get the work started. Then there was a Provision Committee which made contracts with purveyors and whose members, “two and two in rotation” supervised every evening the weighing-in of the deliveries. A Management or General Committee met every two weeks or more often, if needed, and three members of this committee would in rotation attend the distribution of the soups. Records were kept, inspected every so often, and blank forms used to regularize the procedures.³ Finally, there were also Committees of Conductors who

¹ Ausführlicher Unterricht, op. cit., p. 18.

² Essays, I, p. 204; Harvard Collection, V, p. 180.

³ Suggestions, op. cit., pp. 3-6. These were probably standard procedures. One finds very similar by-laws in Society for the Relief of the Industrial Poor, The Economy of an Institution Established at Spitalfields, London, for the Purpose of Supplying the Poor with Good Meat Soup at a Penny per Quart (London, 1799), pp. 12, 13. Reports, I, No XXXIX, pp. 303ff., deals with this establishment.

investigated applications for relief, and whose members, if necessary, visited the applicants.¹

An investigation of the ownership of the English soup kitchens results in questionable findings, except that undoubtedly all of them were privately owned. Of those kitchens which in 1797 were subsidized by the Lloyd's Committee and worked between February 11 and July 10, 1797, twenty were owned by the cooks, also designated as "masters". For the rest, the kind of ownership cannot be established with certainty. But it is very probable that the "societies" of the subscribers were the owners of the buildings and equipment.² The facts that the "societies" elected building committees and received subsidies for building purposes from the Fund for the Relief of Industrious Poor speaks for this interpretation.³

As to the organization and financing of the new type of institution, France stood somewhere between England and Germany. The initiative came from below and the initial funds were raised widely by subscription, but from that point on public aid was expected and where it was not provided what had already been brought into existence would be abandoned.⁴ Delessert himself presented a kind of program which illumines the French situation. He would have preferred the founding and administration of soup kitchens by private citizens who raised the necessary funds by subscription. Government should not establish soup kitchens; its role should be that of promoter. But if the desirable goal was unattainable, then the government should enter the field as the founder of soup charities.⁵ In fact, the governmental welfare organization of which Delessert thought consisted of the 48 *bureaux de bienfaisance* established at Paris under the law of 7 Frimaire An 5 (November 28, 1796), supplemented by a municipal welfare organization, the *comités de bienfaisance* presided over by the respective mayors.⁶ Unfortunately, the available material on the financing of the French soup kitchens does not provide a clear picture. It was pointed out earlier that Delessert started the movement. The capital which he sank in the first soup kitchen in Paris in the Rue du Mail was 800 francs; but it is not clear if he provided this initial capital alone, or in cooperation with another citizen, Colibert by name, or if he only advanced the funds

¹ Colquhoun, op. cit., pp. 16, 24.

² Colquhoun, op. cit., p. 23; General Report, p. 7.

³ Statistical material on the financing of the English soup charity was given in section II, since it was considered inadvisable to tear it apart from other data with which it is connected in the main source.

⁴ See pp. 206, 213-214.

⁵ Delessert, *Sur les fourneaux*, pp. 35ff.

⁶ Join-Lambert, op. cit., p. 43.

which were ultimately provided by subscription. The latter is more probable, for subscription was successfully opened, the subscribers receiving 100 tickets all told for distribution. Their subscriptions certainly financed the current expenses. The administration of the charity was in the hands of Delessert, Colibert, and a committee of the subscribers.¹ Yet out of the 300 soups, dispensed daily, the *Comité de Bienfaisance du Mail* paid for 150 and distributed them under their own responsibility.² Accumulating funds were deposited in the *mont-de-piété* and withdrawn as needed, an interesting piece of information in view of disagreement as to the role of *monts-de-piété* in the history of early banking.

We owe to Delessert, in his capacity as the treasurer of the *Comité des Soupes Economiques* at Paris which financed the city's twenty soup kitchens, the very telling following:

RECAPITULATION DES RECETTES DU COMITE
DES SOUPES ECONOMIQUES,
Depuis le 16 Prairial an 9, au 1^{er} Vendémiaire an 11
[June 6, 1801 to September 23, 1802].

Chaptres	Livres	tournois
1 ^{er} . Souscriptions et dons	50.075	
2 ^e . Bons de Soupes vendus aux bureaux de bienfaisance	21.343	10
3 ^e . Bons de Soupes vendus à l'agence des Secours	78.975	
4 ^e . Soupes vendues journellement dans les établissemens	2.823	12
5 ^e . Dépôt retiré du Mont-de-Piété	13.122	
TOTAL de la recette	166.339	2
Solde restant en caisse, le 16 prairial an 9	1.142	10
TOTAL	167.481	12

N.B. Non compris les 5.062 l. 10 s. à recevoir du Ministre de l'Intérieur.³

This financial report shows clearly the dependence of the Paris soup charity on public aid; items 2 and 3 standing therefore and amounting to 100,316 livres 10 sols exceed by about 100 per cent the income from subscriptions and gifts; while the income from the sale of meal tickets is all but insignificant. If we add the expected aid of 5,062 livres and 10 sols from the minister of the interior, public aid becomes even more

¹ Information on Colibert as well as Gilet (see p. 206) could not be unearthed.

² "Notice sur les Soupes de Rumford, établies à Paris, rue du Mail no 16", in: *Journal de Physique, de Chimie, d'Histoire Naturelle et des Arts*, L (1800), p. 203; *Décade Philosophique*, XXVII (1801), p. 201.

³ *Rapports*, p. 69. For the transposition of dates given according to the republican calendar into those of the Gregorian, see *Grande Encyclopédie*, VIII, p. 910. The franc of 1796 was nothing but the livre tournois decimally subdivided.

preponderant. In 1800 the Paris soup kitchen in the Rue Poissonnière had to be abandoned because it could not gain the assistance of the *Comité de Bienfaisance* of the area.¹

Turning from Paris to the country at large, we find a rather confused picture which makes a clear-cut breakdown impossible. Under these circumstances it seems preferable to reproduce first the tabulation in the *Rapports*:

<i>Département</i>	<i>Administration</i>	<i>Finance</i>
Ardennes	Ternaux Frères et Jaubert Cité de Neuflize	Advance by Ternaux Subscription
Aisne	Hospital Administration	The same
Bas-Rhin	Commission de la Société d'Agriculture	The same
Bouches du Rhône	Commission	Sous-préfet Administra- tion de l'Intérieur
Eure	Administration des Prisons	The same
Eure et Loir	Administration des Prisons Comité direction de l'Atelier	The same Subscriptions
Gard	Comité nommé par les souscripteurs	Subscriptions
Gironde	Comité	Subscriptions
Hérault	Comité de la Société d'Agriculture	Subscriptions
Isère	Comité	Subscriptions
Loiret	Comité de la Société libre de Bienfaisance	Subscriptions
Lot et Garonne	Préfet et Maire	Subscriptions
Manche	Mairie	Subscriptions
Moselle	Bureau de Bienfaisance	Subscriptions
Oise	Commission nommée par Préfet	Préfet, Subscriptions
Deux-Sèvres	Préfet	Subscriptions
Rhône	Comité	Subscriptions
Vaucluse	Préfet, Maire Bureau de Bienfaisance	Subscriptions Fond des Pauvres

When one tries to break down this information it appears that in nineteen *départements* 16 soup kitchens were financed by subscriptions, i.e., by private citizens; 4 soup kitchens were financed by subscriptions of private citizens supplementing contributions of public authorities; 7 soup kitchens were financed by public authorities alone. As to the administration of the kitchens, we find 6 managed by *comités* and, assuming that this term connotes elected bodies, administered by private citizens, in 1 case private citizens seem to have cooperated in

¹ Delessert, op. cit., pp. 34, 35; see above, p. 212.

the administration with officials, in 11 cases officials alone or “commissions” were in charge of the administration; and we assume that “commission” connotes an appointed body. To be sure, this breakdown is by no way foolproof. But what does come out clearly enough is the difference between France and Germany, on the one hand, and France and England, on the other.

The case of “Ardennes” is different and of particular interest. An industrial firm advanced the money for a soup kitchen, probably playing a role similar to that of Delessert when setting up the first one in Paris. The firm also administered the charity, again similar to, but more autocratic than Delessert who had cooperated with a few others. Baron Ternaux, the head of the firm in question, was one of the outstanding early French industrialists and he, again like Delessert, acted for the benefit of the poor of his community. But there was another manufacturer, one C. Delaitre, who established a soup kitchen at his plant at Lépine near Arpajon. It is not certain, but probable, that the 120 people fed there were workers of the plant, so that we would deal here with an early case of an industrial welfare program.¹

CONCLUSIONS

For the twentieth-century observer it is hard to comprehend the excitement aroused by the news of Rumford's set of achievements. As a matter of fact, it was not star-gazing humanitarian reformers, lovers of mankind, or men motivated by bad conscience, but level-headed men in business and public life, taking the societal conditions of their time as given, who took up the challenge. When Faigel characterized Colquhoun as a “practical philanthropist”,² he gave a label to the type of men whom we could observe in action. If we accept the term, “practical philanthropist” is the appropriate one for Count Rumford himself.

¹ Alphonse Leroy, Letter to the editors of *La Décade Philosophique, Littéraire et Politique*, XXIV (1800), pp. 518, 519. Biographical data on C. Delaitre could not be found.

² *Op. cit.*, p. 150. It remains an open question whether the term is useful for modern research. If so, one could define as a “practical philanthropist” any person whose actions are philanthropical in character, while his ultimate motives and goals are political or economic or what have you. (In contrast, a genuine philanthropist could be defined as a person whose ultimate motives and goals as well as his actions are philanthropical.) Rumford's description as a “practical philanthropist” should not be misunderstood to mean that he aimed at pecuniary gain. By contemporary standards this would actually have made the aristocrat a contempted “projector”, an opprobrium which, as an innovator, he could not entirely avoid (see p. 194, note 2). Moreover, in the eighteenth century an invention saving fuel and cost had no market value.

He tried to eliminate mendicity. Colquhoun, as a magistrate living in an unruly decade, was aware and afraid of hungry mobs. The great banker Delessert had gone through a bloody revolution; Abraham Joly was a physician with administrative experience, and the Committee of Subscribers to the soup charity at Lloyd's contained some of the biggest businessmen of the time, John Julius Angerstein among them.¹ The unsatisfactory contemporary biography of Bernard may have blurred his portrait, just as the one of Colquhoun written at the same time distorted his, because the authors tried to make them appear as models of human perfection.²

A second interesting aspect of our material is the direct relation of science and charity. Those were the halcyon days of science when the destructive aspect of "progress", invariably connected with the creative one, still remained all but hidden. In our time it has become close to prevalent. Yet the scientist Rumford, the benefactor of mankind, practiced what we call "weapons research" today. By experiments, he tried to improve the "force of fired gun powder", and he suggested improvements in the field artillery.³

There is a third point of interest. Germany, England, France, and Switzerland had an identical problem on hand, undernourishment and even starvation of employables and even employed workmen. Under the influence of Rumford's achievements the solution to the problem was sought in the same direction, namely, by the establishment of the newly-devised soup kitchens. But organization, administration, and the financing of these went different ways in many respects, according to national customs and preferences. The assistance of private citizens was indispensable everywhere. But the role of government varied from country to country. Even in England, where at first glance government seems to have stayed aloof, corporate bodies helped finance the Lloyd's Committee; and these corporate bodies may well have included towns and counties. The available material is not clear on this point. But it permits the conjecture that in England at least local government was drawn into the financing of the soup charity, although not into its administration.

¹ Colquhoun, *An Account* (see p. 201, note 4), p. 5.

² These biographies are cited above, p. 200, note 4, and p. 202, note 3.

³ See the pertinent essays in the Harvard Collection, Vol. IV.