

*Education, prosperity, and freedom are the only guarantees for the lasting health of a people.
Bildung, Wohlstand und Freiheit sind die einzigen Garantien für die dauerhafte Gesundheit eines Volkes.
(Virchow 1852:56)*

THE
MISERY IN THE SPESSART
[Die Noth im Spessart]

A MEDICINAL-GEOGRAPHICAL-HISTORICAL SKETCH.

PRESENTED AT THE PHYSICAL-MEDICAL SOCIETY
IN WÜRZBURG
ON 6 AND 13 MARCH 1852
BY

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(From the Verhandlungen der phys.-med. Gesellschaft Vol. III.)
Proceedings of the physico-medical society

WÜRZBURG.
PUBLISHER OF THE STAHEL'SCHE BOOKSHOP.
1852.

*Bibliotheca Regia Monacensis
Bavarian State Library Munich, Bavar. 2707f*

Editor: M. Vogt, Görlitz 2021-02-23

On 21 February 1852, I left Würzburg with the Government Councillors Schmidt and Koch, both members of our Society at the time, on behalf of the Ministry of the Interior, in order to visit the areas of the Spessart that were beset by famine and to investigate the state of health of the inhabitants, which was portrayed as endangered by sad rumours. It was just four years since I had been sent to Upper Silesia by the Prussian Medicinal Ministry to study the “famine plague” there. On the evening of February 20, 1848, I left Berlin, full of the anxiety and compassion that such an unknown and terrible epidemic must arouse in every doctor, and yet little suspecting how lasting an influence the experiences of this journey would have on the whole circle of my views. Four eventful years had passed since then, and yet the images of that misery still stood fresh and rugged in my memory. Should they now be replaced by new ones?

Our journey through the Spessart was outwardly happy, although it had all the difficulties that a mountainous region presents in the middle of winter after devastating floods: short days, long distances or, in the case of short distances, long detours and precarious roads. Only the weather favoured us, for it was mostly clear with moderate cold, and the snow did not fall anywhere in such quantity that it would have caused us immediate obstacles on the larger paths. The first day we went to Aschaffenburg, from there we visited Leidersbach, a remote village in the southern

foothills of the Spessart, on the following day, went via Aschaffenburg and Hessenthal back into the inner Spessart, on the 23rd we passed through Weibersbrunn and Rothenbuch, on the 24th through Waldaschaff, and then via Weissenburg to the south. Then we went via Weiler, Unter-Bessenbach, the Weiberhöfe and Laufach to Hain, from there on the 25th to Heinrichsthal in Hochspessart, and descended into the Kahl-Grund, where we reached Schöllkrippen via Gross-Kahl and Laudенbach in the evening. On the 26th [page 2] we hiked through the villages of the Kahl-Grund one after the other: Schöllkrippen, Ernstkirchen, Sommerkahl, Gross and Klein Blankenbach, Erlenbach, Königshofen and Schimborn, and reached Alzenau im Freigericht via Mömbris in the evening. From there, on the 27th, we drove through Electoral Hessian territory via Meerholz and Gelnhausen to Wirtheim and Orb, and on the 28th we returned via Aura, Burgsinn and Rieneck to Gemünden in the Main Valley, from where we soon reached Würzburg.

Our journey led us through the most diverse areas of the Spessart and its foothills, and since we found the most active and friendly cooperation of the officials, doctors and district foresters everywhere, and received the quickest information from the parish priests, school teachers, etc., it provided a clear and well-arranged picture in a very short time within this closed framework, as it would not be easy to obtain under other circumstances. High vantage points allowed us to enjoy wide views of the landscape, which was admittedly closed in winter, and from which the eye was able to gain very definite impressions of the surface conditions. Numerous, often quite unexpected visits from house to house showed us cellars and houses, kitchens, parlours and chambers, floors, stables and barns in their true and unveiled state, and we saw the population in their ordinary and holiday activities, in the midst of their families and their sufferings.¹

The Spessart is a region quite unknown to the wider world, and even though many a person may have travelled the road to Aschaffenburg and Frankfurt that leads over its heights and next to which Immermann's charming *Waldmäbrchen* [Forest fairy tale] plays, almost only foresters and timber merchants, apart from the nearest neighbours, come to its inner, closed valleys. It is not the road of tourists and transient travellers; even the smug eye of the medical historian has not lifted the veil that rests over this people's history of suffering. What the government has done and advised in earlier years to secure the well-being of the afflicted people may well have penetrated little beyond the circle of the initiated, and even royal mercy has found few eulogists here. So silent and lonely is the Spessart.

It is not the most fortunate zone of the earth's surface in which the Spessart lies. The longitude of Pless and Rybnik in Upper Silesia (50° north) also cuts through Prague and Main, which also strikes Prague and Mainz, cuts through the middle of the Spessart, somewhat north of Rothenbuch, and the zone between 50° and 51° includes the north of Galicia, Upper Silesia, the Giant, Ore and Fichtel Mountains (Voigtland and Upper Franconia), the Thuringian Forest, the Rhön, the Hessian Vogels Mountains, the Nassau Westerwald, Luxembourg and large parts of both Flanders. Everywhere in these countries the cry of distress is sounding again, everywhere in them public help is called for, and not for the first time the danger of "hunger typhus" has become a reality in several of them.

¹ I mention this so that a nagging speaker does not again pass a noble judgement on the "fleeting traveller" from the green table at the warm stove, and attribute my own views to a foreign authority when I cite earlier works for individual things. It has happened to me that my completely independent description of the surface conditions of Upper Silesia, for which I used individual elevation and soil determinations of the senior mountain councillor Mr. v. Carnall, was reported in an annual report as originating from him!

The Main, as it cuts through the plateau of Lower Franconia and in its deep, sunny valley exposes the shell limestone everywhere at the edges, which forms a mighty bed under the Keuper formation, goes from Würzburg fairly straight towards the northwest to Gemünden, where it meets the Spessart. The river Sinn, which flows down here in an almost northerly direction and falls with the Franconian Saale into the Main, suddenly divides land and people. Shell limestone and Keuper disappear, and the colourful sandstone rises up in great thickness; beautiful beech and oak forests close off the farmland; Franconian costume, Franconian dwellings, Franconian physiognomies make way for the peculiarities of the Spessart people. Here are the old borders of Würzburg and Churmainz dioceses.

The Main, suddenly thrown back in its course, now flows almost entirely southwards as far as Wertheim, where it takes in the Tauber, then turns westwards around the foothills of the Spessart, at Miltenberg quite closely enclosed between the heights of the Odenwald and the Spessart, and here, pushed back anew by the steep slopes of the Odenwald, changes its bed once more to flow, almost exactly parallel to the course from Würzburg to Gemünden, towards Aschaffenburg and Hanau, where the broad Main plain rises. In this way it flows around the foot of the Spessart in a long curve, and reaches a fairly equal northern width before and behind it. The Spessart almost completely fills the tongue thus formed, descending towards the south, rising in the middle to a moderate ridge, which exactly forms the watershed between the eastern and western forest streams. It is a fairly continuous, although not very high, ridge,² which begins opposite Miltenberg on the Main in the Engelsberg, then rises gradually, reaching 1299' at Krausenbach, 1408' between there and the two stones, 1517' at the latter (between Krausenbach and the 1600 high Jockel, which lies on the Aschaffenburg-Würzburg road), and finally rising to 1900' in the Geiersberg, southeast of Weibersbrunn. The Grath then continues in its northerly course, gradually sinking and rising to an average height of 1335' at Heinrichsthal. Throughout its course it bears the name of Eselshöhe, an old tradition, for the Romans already had a road here, called *via asinina*. From Miltenberg, where the easternmost Roman castle stood on the Main, this road separated the Decumatic land from free Germania. Whether it was itself protected does not seem to be certain, for the Limes Romanorum is drawn in such a way that it leads from Hesse to Aschaffenburg, the old Castrum Ascapha, where the signs of the V. and the XXII. (Britannic) Legion are still found,³ then towards Klein-Wallstadt, which bears his name, and Elsenfeld, where under Caracalla the battle of the Dam Field (*campus damnatus*?) against the Alemanni took place, finally towards Miltenberg and Bürgstadt, from where it continues south. Meanwhile, in the forest district of Wiesen and near Cassel in the district court of Orb, whose name is reminiscent of Castellum and which is commemorated as early as 976 with Wirtheim in a donation by the emperor to the monastery of Aschaffenburg, traces of a stake ditch are said to be found,⁴ quite similar to those on the Taunus, whose long course one walks through when climbing the Feldberg from Homburg.

In the area of Cassel, the Donkey Road met another great military road (*via exercitialis*), which ran from east to west and still bears the name of the High or Birkenhain Road. It began on the

² See the sketched topography of Aschaffenburg in J. J. Reuss, *Wesen der Exantheme*. Nuremberg, 1818, vol. III, p. 22.

³ Burnt stones from there with the sign of the XXII Legion can also be found in the collection of the historical society of Würzburg.

⁴ History and Description of Aschaffenburg and the Spessart by Behlen and Merkel. Aschaffenburg. 1843. p. 4. 8. 138.

heights between Gemünden and Rieneck at the Schanz or customs house at the junction of the Sinn and Saale rivers, then ran via Rengersbrunn (it is said to have been called Regisbrunn by Barbarossa) to the heights of Orb (urbis ?), and ended towards Alzenau and Hanau. This is classic ground of German history, for on [5] this road Emperor Carl the Great went from Ingelheim on the Rhine to Saaleck and to his palace on the Saale, the old Salzburg (Palatium Salz) above Kissingen near Neustadt, where he held imperial diets and received the envoys of the Orient, and where even now a wide construction of walls, towers and buildings bears witness to the ancient power of the Carolingian rulers. This road was also taken by Frederick the Rothbart, whose hunting lodge still stands in Schöllkrippen, and whose proud castle in Gelnhausen shows in its ruins the artistic splendour of the noble Hohenstaufen. Between Gelnhausen and Alzenau lies Rodenbach, so called because of its blood, when Emperor Frederick was saved from a secret attack by the people of the High Mark around Alzenau, and in return gave them so many rights that their land is still called the Freigericht (Free Tribunal). On the Haisbach Heights between Cassel and Höchst, the Emperor's Oak, under which the great Emperor used to rest, stood until late times. Many precious memories keep Rothbart's memory alive here, but he sleeps the long sleep in Kyffhäuser, and in the ruins of his imperial castle in the now Electoral Hessian town of Gelnhausen, hordes of beggars dwell.

The high road designates the northern part of the Spessart, which runs from east to west and rises in the Orber Reisig to 1702'.⁵ Thus this rather large terrain presents itself as an extensive highland, whose more significant elevation continues partly in the direction of the Eselshöhe, partly in that of the high road, which, by the way, connects to these central masses on all sides without considerable subsidence. If one calculates its surface in the broadest sense at 32, in the narrower sense at 19.15 miles, its mean elevation cannot be estimated above 1200 - 1400' above the sea. The height of the Main, however, is 450' at Gemünden, 395' at Miltenberg, 366' at Aschaffenburg, while the Nicolausberg immediately adjacent to Würzburg is 960' and the Main at our place 499'. Rothenbuch is 1216', Heinrichsthal 1394', Weibersruh (a source of the Weibersbrunner Bach) 1150', Heigenbrücken 914', Waldaschaff 734' high. In this respect, too, the country shows a certain similarity with Upper Silesia, which, with an area of about 35 miles, forms a plateau cut and torn through many times, whose elevation above the Baltic Sea is on average 900-1000'. (Cf. my report in Archiv f. pathol. Anat. vol. II. p. 145.)

[6] If you look out over the country from a lofty vantage point, you will see almost nothing but a moderate hilly country spread out before you, whose gently rounded hilltops stand quite close to one another and which is covered up and down with the most beautiful deciduous forest. This magnificent forest, the most beautiful example of German forestry culture, is spread out like a large park, with its slashes and "cultures": an almost regular alternation of young and old stands, whose age differs by centuries.⁶ There is not a single town in the entire area of the Spessart; only villages,

⁵ The height determinations were kindly communicated to me by Mr. Schonk in accordance with the law.

⁶ O Spessart, noble forest, you are the prize of / the forests at all times. / How far around in the land and regions the / eyes look inquiringly, / With your beeches, your oaks, no other forest can / be compared! / Your trunks / stand /like slender pillars in the temple room, tree to tree, / and your tops arch devoutly / to the wide dome. // O Spessart, edler Forst, du bist / Der Wälder Preis zu jeder Frist. / Wie weit umher in Land und Gauen / Auch forschend rings die Augen schauen, / Mit deinen Buchen, deinen Eichen / Lässt sich kein and'rer Wald vergleichen! / Wie Säulen schlank im Tempelraum / Steh'n deine Stämme, Baum an Baum, / Und deine Wipfel wölben sich / Zum weiten Dom andächtiglich. (Zedlitz, Waldfräulein. Is. Abenteuer.)

some of them quite large, half-hidden in the valleys and the bottoms of the forest streams, interrupt this great forest solitude at wide intervals....

Only on the western periphery, in the district that runs northwards from Aschaffenburg, does the character of the soil and the surface change. Here we find traces of volcanic and plutonic activity everywhere. For the immediate surroundings of Aschaffenburg, our foreign member Mr. Kittel has already provided a more detailed description (*Skizze der geognost. Verh. Aschaffenb.* 1840), and Mr. Scherer, in his lectures at the Society's meetings of May 25 and June 8, 1850, sketched a picture of this region illustrated by numerous demonstrations (*Verhandl. Bd. I. p. 175*). Everywhere on the western slopes of the mountains one encounters primeval formations, namely very abundant gneiss, mica schist, syenite, granite; at some points one sees isolated porphyry peaks protruding, and basalts erupt in many places, as for example in the cone of the Beilstein in the Orber district, which is visible from afar and which carries the ruins of the Metterniche castle. Here there is nothing left of the uniform structure of the inner Spessart. As the primeval mountain formations emerge from under the colourful sandstone towards the west, the alternation of long mountain ranges, broken cones and deep, expansive valleys begins. From the road that climbs up to 1400' towards the Engländer on the western slope [7] of the Spessart proper via Sailauf, whose old mountain church is said to date back to the 11th century, the eye sweeps far and wide over a colourful mountain landscape, which is closed off in the far distance by the Odenwald and the Taunus.

Somewhat north of here, in a long stretch towards the southwest, begins the Kahl-Grund, sometimes narrower, sometimes wider, a densely populated valley, enclosed on both sides by mountains, in which cobalt, copper, iron, etc. have been mined in the past, and in some cases still are (on the territory of Electorate Hesse). The mountains on the left bank of the Kahl rise higher and higher as one advances southwards, and end in the Hahnenkamm, east of Alzenau, which is visible from afar at a height of 1641'. The chain that accompanies the right bank of the Kahl ends somewhat earlier, gradually flattening out into the Main plain, but still retaining its volcanic character.

Along the entire western circumference of this mountain range we find, in part still quite southward, salt springs; in Bavaria those of Orb, Soden and Sulzbach, in Hesse those of Salmünster, Soden and Salz, a series which continues to Brückenau and Kissingen and the region of the Carolingian Salzburg, and of which Mr. Kittel makes it probable that they may originate from an extensive salt deposit which forms the bottom of the coloured sandstone (1. c. p. 54). Of particular interest are the springs of Orb, which have been used in recent times for medical purposes, and which gush forth from the earth with a large carbonic acid content, and next to which are very rich carbonic acid mofettes, which are used for the production of a beautiful acidulous fountain through the supply of a sweet spring. Here, human industry has artificially created a relationship which seems to best explain the natural mechanism of the intermittent bubbling in the Kissingen salt works.

It is therefore this western range that seems to form the continuation of the basaltic and phonolithic elevations of the Rhön, as has already been explained many times. The Neptunian deposits of the Triassic, the coloured sandstone, the shell limestone and the Keuper, which cover the Lower Franconian countryside one after the other, then join this stock. All these rocks are exposed to weathering at the fastest rate, and at Hain, where the railway construction has only just exposed the deposits of mica schist, which is broken through by syenite, almost the entire surface

has already weathered back to fine dust. It is on this weathered soil that the great forest culture of the Spessart spreads. It is a sterile arable land, and although the individual colonists have in some cases obtained spacious plots in the interior of this terrain, the leanness and the great drying capacity of the soil frequently pose obstacles to orderly farming. The relatively great elevation of the land, and perhaps even more so the enormous forest area, cause a roughness of the climate that is reminiscent of the description of ancient Germania. It is even possible that Tacitus, who is so broad in his description of the Chatti, had gathered more detailed knowledge of these very borders of the Roman Empire. *Silvis horrida, frugiferarum arborum impatiens* [A horrible forest, impatient of fruit trees]. "In the Hochspessart, where one knows only two seasons without noticeable transitions, only thin, grain-poor summer grain, oats and buckwheat ripen," say Behlen and Merkel (p. 112). For a long time, as in all poor countries, potatoes have become the real food crop. Livestock breeding is also limited, since the orderly forestry sets certain limits to it, and only pigs are raised in large numbers, partly at the expense of the potato. The woodpecker beard (*nemus pici*) is already mentioned in the Nibelunge Not, and it seems that it served the German kings as a hunting ground for a long time.⁷ In 976 it came to the monastery of Aschaffenburg as a gift from Emperor Otto II, but seems to have passed with the latter to the archdiocese of Mainz in the same 10th century. In the 12th century it was therefore called *Maguntinum nemus* [The forest of Mainz]. At present, with minor exceptions, it belongs entirely to Bavaria. The actual inner Spessart is almost exclusively the district court of Rothenbuch; the Kahl-Grund (with the Freigericht) belongs to the district court of Alzenau, and the northern part is the district court of Orb. In the surrounding area, the district courts of Lohr, Rothenfels, Klingenberg, Obernburg, Aschaffenburg and partly Gemünden more or less encroach upon it. For the present purpose, therefore, it is mainly the districts of Rothenbuch, Orb, Alzenau and to some extent Lohr that we have to look at in more detail. The statistical data, unless otherwise noted, are either taken or calculated from the "Contributions to the Statistics of the Kingdom of Bavaria, Munich 1850" edited by Mr. von Hermann from official sources.

According to the 1849 census, the following ratio was found:

Lower Franconia and Aschaffenburg	162.317 M ²	587,402 inhabitants.
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⁷ In the 17th adventure of the Song of the Nibelungs, "Wie Siegfried ermordet ward" ("How Siegfried was murdered"), it is told that during the great hunt in the Odenwald, the wine was deliberately forgotten in order to get Siegfried to drink from the spring and thus to put him in the position suitable for his murder. Now when Siegfried complained that there was a lack of drink, Hagen von Troneck said (ed. by Lachmann p. 107. v. 908. ed. by Sch#nhuth p. 279. v. 7802):

My dear lord, / I want to take care of this. It should be done in the middle of the woods. I will /
send the win. // Vil lieber herre min. / ich wande daz diz pirsen. hivte solde sin. / da zem Spehts-
harte. den win den sande ich da

Of course, it is possible that the Spessart mentioned here was located on the left bank of the Main. Only in the summer of last year, not far from the village of Grasellenbach in the "Walddistricte Spessart" (of the Odenwald), a stone monument was erected instead of the cross that had been there until then, at the spring where, according to Knapp's local investigations, the horned Siegfried is said to have drunk and been murdered. If one remembers, however, that Aschaffenburg itself used to lie in the Spessart, then it is quite conceivable that the Spessart once extended over the Main into areas that are now counted as part of the Odenwald.

The following passage from Helmbrecht (29th in von der Hagen *Gesammt-Abenteuer*), which was kindly passed on to me by Mr. F. Reuss, is very significant for the naming:

The lim was covered with birds, / As if they had flown there / From the Spessart. //
Daz lim mit vogelen was bezogen, / Als ob sie dar waeren gevlogen / Uz dem spehtharte

Rothenbuch	6.511	12.774
Orb	4.813	11.786
Lohr	3.941	11.484
Alzenau	3.620	16.812

If one calculates the ratio of inhabitants to land area, one obtains for different years per 1 M.:

	1840	<u>1846</u>	1849
Lower Franconia and Aschaffenburg	3.568	3.647	3.619
Rothenbuch	1829	1.905	1.961
Orb	2611	2.553	2.448
Lohr	2979	2.988	2.913
Alzenau	4536	4.705	4.644

Here, of course, there is a great diversity, but one must not lose sight of the fact that Rothenbuch, Orb and Lohr are largely forest districts, and the usual scale of population must not be applied here.... In Alzenau, on the other hand, the relatively dense population ratio is all the more striking. The fact of the decrease in population in 1849 compared to earlier years, if it is based on correct counts, applies to all of Lower Franconia, and only in Orb and Lohr do we see a lower population in 1849 than almost a decade before. This becomes all the clearer if we follow the three Spessart districts through a larger series of years. [10]

	<u>Rothenbuch</u>	<u>Orb</u>	<u>Lohr</u>
1827	11.036	7.827	12.268
1830	11.735	12.668	10.988
1834	11.878	12.673	11.255
1837	12.059	12.468	11.489
1840	11.910	12.570	11.644
1843	12.211	12.569	11.752
1846	12.402	12.288	11.775
1849	12.774	11.786	11.484

While Rothenbuch, although the most sparsely populated, shows the most regular increase in population, Orb offers the example of a decreasing population with slight fluctuations since 1830, and Lohr has fallen considerably below the number of 1827. Unfortunately, we are unable to provide any corresponding series of figures on the emigration and mortality ratios, so that we are content to have noted this striking example.

The Spessart teaches us how insufficient it is for statistics to know the ratio of land area to population alone. If this land area serves certain other cultural purposes, then no conclusion can be drawn from it about the poverty of the population, about its social relationship and about its medical conditions. As I have already explained in my consideration of the Upper Silesian stories, it is above all the actual housing conditions that must be taken into account here. After all, it is how people live that is the measure of their lives, not how large the floor areas are between or outside their dwellings. Unfortunately, the official figures only contain information on the number of habitable private buildings for the year 1840:

				<u>On 1 flat</u>	
	<u>Flats</u>	<u>Families</u>	<u>Souls</u>	<u>Families</u>	<u>Souls</u>
Unterfr. a. Aschaff.	93656	125540	579279	1.34	6.7
Rothenbuch	1807	2343	11910	1.29	6.5
Orb	1723	2585	12570	1.50	7.2
Lohr	1557	2760	11644	1.77	7.4
Alzenau	2646	3342	16422	1.26	6.2

To explain these figures, another comparison is needed, namely the ratio of the number of heads to the number of families. This is calculated according to the censuses of 1827, 1840 and 1849 as follows: [11]

		1827		1840		1849
Lower Franconia and Aschaffenburg	1 :	4.8	1:	4.6	1 :	4.5
Rothenbuch		5.1		5.0		4.6
Orb		5.3		4.8		4.2
Lohr		5.2		4.2		4.2
Alzenau		5.0		4.9		4.8

From this, the actual housing ratio emerges with some clarity. In Orb and Lohr, where there are on average 11 - 11 families per habitable private building, the number of inhabitants of such a house is of course much greater than in all of Lower Franconia; in Alzenau, where the number of families in relation to the dwellings is much smaller than in Lower Franconia, the number of heads is nevertheless only insignificantly smaller, because the families are larger; finally, in Rothenbuch, where the number of families is also smaller than in all of Lower Franconia, the number of heads is almost equal to that of Lower Franconia, because from 1827-1840 nowhere did the families number so many members, - a ratio which corresponds perfectly with the almost constant increase in population since 1827. However, these proportions become even more abrupt if we take the three larger towns (Würzburg, Aschaffenburg and Schweinfurt) and their military population, which alone amounted to 180 families and 7095 heads, into account. We then obtain the following figures for the rural and small-town areas of Lower Franconia:

89,831 dwellings,	117,992 families,	535,845 souls,
therefore to 1 flat	1.31 and	5.96.

In general, therefore, we can say that the actual housing ratio in the district in question indicates a greater density of population than in Lower Franconia, and that the lower number of heads in comparison to the floor area by no means gives a correct picture of the social life of this population.

The figures from Orb and Lohr agree wonderfully with those I found in Upper Silesia. There too, according to the 1834 census, there were slightly less than 7.5 people per dwelling. Unfortunately, I am unable to make further comparisons at the moment. In Upper Silesia in 1847 there were slightly more than 9.5 people to one dwelling, and it turned out that from 1834 to 1847 the increase in the number of dwellings to the increase in the number of people was in the unfavourable ratio of 1 : 20. (Cf. my Mittheil. über die in Oberschlesien herrschende Typhus-Epidemie, Berlin 1848 p. 24. 24. Archiv für pathol. Anat. Vol. II. S. 164). Probably something similar could be proved for [12] the Spessart. One sees relatively so few new houses that, especially in the district of Rothenbuch, the housing conditions have probably deteriorated considerably and the density of the population has probably increased significantly.

The view, which can be gained directly everywhere here without any statistical reference, is that the dwellings are overcrowded and the inhabitants are squeezed together to the utmost. Wherever you go in the Spessart, you see relatively small houses with a single living room with a small closet and a small kitchen above a cellar that is usually completely above ground. One climbs up a stone staircase to a small forecourt, which leads straight into the kitchen, on one or both sides into the living room, and up to the pantry. Under the same roof is often the cattle shed and the barn. All around and especially in front of the house are manure pits, and on one side there is usually a small garden. Only in the Kahl district are the houses usually more spacious, often two-storied, and usually friendlier and cleaner. But here, too, the chimney is still missing, and the smoke usually flows from the kitchen through the forecourt and out through the door, which is divided crosswise in the middle of the house, naturally penetrating all the inner rooms. It is only in the Sinn-Grund, where we again touch Franconian territory, that the chimneys reappear.

Inside such a flat lives a family that is almost always very numerous and blessed with children. Sometimes several generations are present at the same time, sometimes even several foreign families together. It is particularly common, however, for relatives with children to share the same rooms. The beds, which are usually very dirty and, where possible, thick and hot, are few in number, both in the room itself and in the often dark and dull closet, so that it is common for 2-3 people, even of different sexes, to sleep in the same bed.

The villages themselves are by no means narrow; on the contrary, the individual houses are usually quite separate from one another. In Leidersbach and Waldaschaff, for example, many things reminded me of the long villages of Upper Silesia (Archive II, p. 165), for here, too, the houses stretched for half and three-quarters of an hour into the gradually lowering valleys, which are usually crossed by a fast-flowing stream rich in water and whose edges are covered with meadows. If this type of construction were not so widespread, one might think that the ancient Germanic character of which Tacitus says: *Nullas urbes habitant; [13] vicos locant, non in nostrum morem connexis et cohaerentibus aedificiis : suam quisque domum spatio circumdat. .Colunt discreti ac diversi, ut fons, ut nemus, ut campus placuit* [They inhabit no cities; they occupy the streets, not in our manner of connected and coherent buildings: every man surrounds his house with space. They worship discretely and diversely, as a spring, as a forest, as a plain]. Nevertheless, the gradual and natural development of the villages from individual colonisations is still evident here. Admittedly, we know very little about the origins of the Spessart villages. In earlier times, the Spessart was praised not only for its wildness but also for its trees. This is what Wolfram von Eschenbach sings in Willehalm (Lachm. 1833 p. 466):

Solch was der banier zuovart,
als al die boume Spehtshart
mit zendal waeren behangen l,

and in Parcival (ibid. p. 108):

von Dianazdrun der plan
ilmuose zeltstangen wonen.
Mer dan in Spehteshart si 'ronen.

Wherever the Spessart is mentioned in the Regesta boica (III. 153. VII. 346. in the years 1260 and 1339), there is no mention of any villages; the name Rorbrunnen, which is currently borne by a single hunter's lodge, does not seem to have been a village name at that time either. Only at the edges and in the outer valleys do monks and individual noble families seem to have settled early

on (I mention among them the Echter von Mespelbrunn, who died out in 1665 and from whose family came Bishop Julius of Würzburg, the founder of the hospital and the regenerator of our university). However, the inner Spessart certainly remained uninhabited for a long time. Even in the 17th century, the Jesuit Athanasius Kircher, who lost his way in the Spessart two days' journey from Fulda, described it in the most gloomy colours and attributed its rescue to a special higher care. *Erat autem portio sylvae, quam Spessartum vocant, mihi transeunda: sylva sane horrida, et non latrocinii tantum, sed et ferarum noxiarum frequentia infamis !* [Now there was a portion of the forest, which they call Spessartum, which I had to pass through: a horrible forest indeed, and not only for robberies, but also for the frequenting of noxious beasts!] (*Vita Athan. Kircheri*, August. Vindel. 1684. 8. p. 11. On the Univers. - Bibl. bound to a Fasciculus Epistolarum Athan. Kircheri Soc. Jesu, accurante Hieron. Langenmantel).

The original population, as it seems to have settled in the western and northern parts of the Spessart and the Kahl-Grunde, where the oldest settlements seem to have existed, may well have belonged to the Hessian (Chattian) tribe, for even now some peculiarities, especially of the female headdress, point to such a conformity, which does not exist at all with the East Franks. "The women everywhere wear their hair combed smooth at the back [14] and the whole mass folded back at the top, so that it is fastened at the height of the crown in a small knot, usually covered with a flat bonnet. The people are generally well educated and especially the women are distinguished from the Franconian women by their greater freshness and more pleasant shape. If one also considers that the Spessartians, like almost all forest and mountain dwellers, are extremely attached to their home, that they almost always return to it even after long hikes, and that they cannot be brought back from it despite their meagre lives, then it is indeed not improbable that traces of the oldest population may still be found here.

On the other hand, it should not be overlooked that there are many examples of later mingling with other tribes. The Kahlgrund, for example, was devastated by the 30 Years' War and the plague that followed it in such a way that in many places only individual inhabitants remained and foreign families, e.g. Italian and Graubünden [East Switzerland] families, settled there. Later, when glass factories were built in large numbers in various places, including the inner Spessart, as in Weibersbrunn and Jacobsthal, foreign workers from Bohemia, for example, are said to have moved into the country, and from their mingling with the natives probably a more prosperous breed emerged.

All of these villages were rather isolated and scattered, and even today, when several larger, well-built roads criss-cross the Spessart, the connection is very imperfect, especially in winter. Not all villages are connected by roads, or they only lead from one to the other by long detours; even the Kahl-Grund, although densely populated, still lacks good roads and there is no trace of a postal connection. The actual Spessart villages usually lie in a clearing in the forest in a more or less deep valley. All around are wooded heights, below which the meagre farmland begins, occupying the slopes and extending to the meadows surrounding the stream flowing through the valley floor. The houses themselves are usually built with the rear wall leaning against the slope, so that a high stone foundation is necessary at the front, which tends to enclose the cellar and often the stable room. The cellar is therefore always entered from the outside through a door opening at ground level at the front, which is closed from the room above by an internal latch. The rear wall of the house, which usually meets the ground directly and behind which, in many dwellings, the falling water, snow, etc. pile up, is therefore usually very damp and we have often seen it covered with dense

layers of mould. Only the floor, which is almost everywhere covered, is dry and relatively warm. Each parcel of land is relatively small compared to the large and populous villages, and there has been an unfavourable reduction in the size of the landholdings due to the ongoing fragmentation of the plots. Mr. Escherich has already demonstrated this relationship in a statistical work on the Spessart, which was first printed in the *Zeitschr. d. Verein für deutsche Statistik* in 1848, and then in the *Neue Würzburger Zeitung* of 19 February of this year (No. 50), and showed that on average, and even with the inclusion of the few property complexes, a plot of land measures only 0.70 square metres, while 6.67 square metres on average should feed a family. Since, as we have shown, each house is proportionately too small for the mass of the inhabitants, there can be no doubt that in the Spessart we have an extraordinarily dense population with a proportionately too small property.

This is probably one of the reasons for the great unboundedness of social life, which not infrequently leads to extreme sexual immorality and to a complete dissolution of the family bond.

According to the official data, which I unfortunately do not have at my disposal beyond the year 1840, the ratio of living illegitimate to legitimate children (under 14 years of age) is calculated as follows: There were 1 illegitimate child under 14 years of age to the following gnumber of legitimate children⁸ [16]

in Lower Franconia and Aschaffenburg	8.85
in Rothenbuch	4.77
in Orb	6.47
in Lohr	9.38
in Alzenau ¹⁰	10.16

Here, too, the Freigericht and the Kahl-Grund (district of Alzenau) show a very favourable ratio, while it is highly unfavourable for Rothenbuch and Orb, where there are as many and here as many more illegitimate children than in all of Lower Franconia, where these regions are also taken into account. Unfortunately, these figures are very insufficient, since it would be more important to compare the number of legitimate and illegitimate births, or at least to know the number of all living illegitimate children in comparison to the total number of heads. In the Landgericht. Alzenau, there is currently 1 illegitimate for every 18 living persons, and at the last registration, Mr. Schmidt from the district of Lohr counted 1 illegitimate for every 5 married persons. Lohr counted

⁸ In 1843/44 the ratio of births was as follows:

In the whole of Bavaria	147,366 births, of which	118,351 legitimate,	29,015 illegitimate.
Lower Franconia	16.993	14.123	2.870

This results in the ratio of those born out of wedlock to those born in wedlock

in Bavaria	= 1: 4.07
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in Lower Franconia	= 1 : 4.92
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and illegitimate births amounted to

in Bavaria	19.6 pCt. of all births
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in Lower Franconia	16.8
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In 1840/41, conditions were less favourable:

in Bavaria	156,212 Births,	123,624 legitimate, 32,588 illegitimate.
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In Lower Franconia	19.170 15.794	3.376
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i.e. in Bavaria Illegitimate : Marital	= 1: 3.78
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Lower Franconia	= 1 : 4.70
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1 illegitimate for every 5 married persons, which would give a completely different result than the one given above.

In fact, the striking figure for Lohr can be motivated in another way from the official tables. If one calculates the increase in the population and the increase in the number of families in the period 1840-49, the following emerges:

A. Population:			
	1840	1849	
Lower Franconia and Aschaff.	579.279	587.402	= 100 : 101
Rothenbuch -	11.910	12.774	107
Orb	12.570	11.786	93
Lohr	11.644	11.484	98
Alzenau	16.422	16.812	102

This ratio must of course change later because of the greater mortality of illegitimate children. In 1840/41, these were born dead in Lower Franconia in a ratio of 1 : 3.58 (in other words, 3.08 pct. of illegitimate children were born dead and only 2.58 of legitimate children) and died by the age of 14 in a ratio of 1 : 4.25. [23 /] 17

B. Families.			
	1840	1849	
Lower Franconia and Aschaff.	125.540	130.397	= 100 : 103
Rothenbuch	2343	2.738	116
Orb	2.585	2.797	
Lohr	2.760	2.678	97
Alzenau	3.342	3.470	108

While Orb and Lohr show a decrease in population, Rothenbuch a rather significant increase, Alzenau almost the average of the general increase of Lower Franconia, we see only in Lohr a simultaneous decrease in the number of families and in fact in an even greater proportion than the decrease in population, while Alzenau is exactly in the average proportion of Lower Franconia, Rothenbuch in a far more significant proportion and Orb, despite the decrease in population, has experienced an equally significant increase in the number of families.

However, it does not seem to me that these figures present a clear picture of sexual life, otherwise one would have to assume that it was far worse everywhere in the past. If we compare the results of 1827 with those of 1849, for example, we see the following:

A. Population:			
	1827	1849	
Lower Franconia and Aschaff.	542.475	587.402	= 100 : 108
Rothenbuch	11.036	12.774	115
Orb	7.827	11.786	150
Lohr	12.268	11.484	93
Alzenau (had a different district in 1827).			

	B. Families.			
	1827	1849		
Lower Franconia and Aschaff.	114,100	130.397	= 100 :	114
Rothenbuch	2.159	2.738		126
Orb	1.474	2.797		189
Lohr.	2.343	2.678		114

If one were to take this general increase in the number of families, which is unequally significant in relation to the number of heads, as a measure of the increasing morality in sexual life, then, as I have said, the conclusion drawn about earlier conditions would probably be too unfavourable. It would therefore be advisable to exercise greater restraint in this respect, and the question should be discussed whether a more premature and therefore also more careless conclusion of marriages does not emerge with the increase in population and the greater density of the same. If this possibility, about which the figures now available to us give no information, should be confirmed, it would only be proof of the earlier awakening of the sexual instinct and of increasing frivolity in the matter of marriage, and while the description Tacitus gives of Germanic youth is quite applicable to the Spessartians: *in omni domo nudi ac sordidi excrescunt, inter eadem pecora, in eadem humo degunt* [in every house they grow naked and dirty, among the same cattle, they live in the same soil,], the greatest difference would nevertheless appear in relation to sexual maturity and marital unrestraint.

The examples we encountered of the extent of sexual immorality in almost every place were in part highly repulsive. Widows as well as single women with 3, 4 and more illegitimate children, and in such a way that mother and daughter produced in this way at the same time, were not uncommon. The most extreme thing we learned was a story told by a community leader about a man who had said of one of his brothers in the public inn that he was actually his brother-in-law because he (the brother) had slept with their sister, and of another brother that he was also his brother-in-law because they had both used the same girl.

Conditions of this kind, as already mentioned, are partly explained by the narrowness and overcrowding of the dwellings. If it is almost the rule that all the inhabitants of a house sleep in the same room or, at most, in two closely adjoining ones, that 2 - 3 persons lie in each bed, that, for example, boys and young men sleep with their aunts in the same bed, children of two families are bedded together, that the young have the sexual pleasures of their elders directly before their eyes, then it is not to be wondered at that the sense of sexual excitement is awakened early and, on favourable occasions, brought to expression early. If, in addition, there is a certain moral slackness, indifference to an excessively strict public judgment, frequency of example, it is certainly 'not to be wondered at' if early and numerous mixtures take place and a comparatively great, even in part surprising, increase of the population takes place. It is not necessary to look for a special stimulant in the exclusive consumption of potatoes, although such more direct stimulants of sexual excitement cannot be denied. But it must not be concealed that the low state of public opinion, the general indifference and indolence, the lack of education and moral habituation must be accused of being the most important means of promoting such conditions. These same conditions in a population just as indolent, just as uneducated, just as poor, just as crowded, just as accustomed to potatoes and brandy, I have shown in Upper Silesia (Archive p. 306). The same can be found in Ireland, and in my description of the conditions in Upper Silesia, I therefore raised the question,

which has since become very frequent and still in recent times the starting point of the most hateful attacks, whether the Catholic hierarchy, which is so powerful and influential in all these countries, should not have been able to bring the peoples to education, prosperity and morality through instruction.

Spessart has belonged to the ecclesiastical Churfürstenthum Mainz for 8-9 centuries. Its present conditions do not date from today, just as little as the famine and the types that at the present moment have made another formerly Churfürstenthisch region the object of public welfare appeared for the first time in history. In Eichsfelde, too, these are only repetitions of earlier misery, as the accounts by Jagemann (*Circa annos 1770 - 72 liber epidemiorum de acuta passim epidemica fibre* [book of epidemics about acute sporadic epidemic fever]. Erford. 1772) and Arand (*Abh. von drei Krankheiten unter dem Volke im Jahre 1771 und 72. Gött. 1773*), as well as the great hunger literature brought to light by the then Churmainz University of Erfurt. *Qui pecunias habet, says Jagemann, aequale rebus pretium, frumentum haud difficulter sibi comparat* [He who has money, says Jagemann, equal to the price of things, procures corn for himself without difficulty.]. Lack of money, however, in a whole population means - lack of purposefully directed activity, of productive employment, of diligence and industry. If the people of Spessart had money, they could easily have bought potatoes and even more easily bread, for in every village we visited the bakers had good and relatively cheap bread. So there was more of a need for money than for food in the area, - and yet no industrial movement, no striving for creation and profit, - only indolence and surrender! Certainly, it behooves everyone to lend a helping hand in this distress and to cover the local shortage by an abundant supply of money, but public charity, even where it is more than ostentation, can only alleviate the momentary crass distress, not eliminate the permanent and grievous one. This can only be combated by the people themselves through their own activity and activity, through independent and self-active work, and this can only be stimulated and sustained through education, instruction and upbringing. Whose task is this ? who recognises it ? who fulfils it? I answer this as I did in Upper Silesia: the Catholic hierarchy could have done it, all the more so because here it was the government itself; it can do it even now, since it has the closest influence on the schools and on the consciences. The state can do it if it holds the entire direction of education in its hands. If it is not possible here to gain a different standpoint of culture, every unfavourable year will bring back similar or even worse conditions. This is an opinion which history, like direct observation, guarantees, an opinion which has been won and may be expressed without zeal and anger, without party consideration and without party fear.

The Bavarian government has repeatedly paid the greatest attention to the conditions of the Spessart, and in particular a protocol that was drawn up in 1843 by a commission under the chairmanship of the President of the government, Count Fugger-Glött, to which Mr. Koch also belonged at that time, can be praised most highly for its openness and clarity. Since then, many good roads have been built through the Spessart, a constant, but admittedly not increasing source of employment has been ensured in the regulated forestry industry, a great deal of large and direct support has been given, especially by King Ludwig, but the nature of the inhabitants has not changed as a result.

The greatest care has been taken for individual places and regions in particular. Thus, for example, attention has been drawn to the physically and morally neglected conditions of Orb by the President of the Government, Count Giech, and a number of the most beautiful buildings (hospital, infant care centre, school, saltworks, etc.), as well as the greater cleanliness and tidiness

of the entire town, bear witness to the efforts to help this remote place. Also in Lohr, where in former times epidemics of typhus are said to have occurred every 7 years, according to the statement of the court physician Dr. Goy, the health conditions have been improved extraordinarily and the social conditions considerably improved for 15 years through a series of hygienic measures (demolition of the city walls, paving of the streets, construction of drainage channels). In many smaller places, individual stone houses, as it were model houses, have been erected and given to the people to encourage them to improve their miserable dwellings. But all these institutions have made no impression on the great masses. The few sources of employment which industry had opened up for them have mostly dried up. The mines that existed in the Kahl region have ceased to exist, and the glassworks that had been built in the Spessart region have ceased to exist after the rising price of lumber had reduced their operations. Thus, nothing has remained for the people but the habituation to certain higher needs. Whereas they used to make their own clothes, they have now become accustomed to the products of foreign craftsmanship. The old Spessart costume of "Beidergemang", a brown cloth of their own factory made of natural wool and linen, we only saw on one man; even the footwear, which in the middle of a forest district could so naturally be made of wood, has everywhere been replaced by leather shoes. The original costume, which is appropriate in such a climate, has given way to the modern, light, equally perishable and unsustainable material; the needs have increased, while the sources of food have diminished proportionally with an increasing population.

Thus it came about that the entire existence of this population was ultimately based on potato cultivation. For a long time, people had entertained the beautiful hope that this beneficial plant had eliminated all danger of famine forever, and that conditions such as those that prevailed over half the world during the great emergency of 1770-72 would never return. Deceptive hope! The potato disease has dispelled all illusions and brought back all dangers that the human race thought it had overcome. All the freedom and ease of movement are not enough to protect a population from hardship if it does not know how to acquire the money to gain possession of foreign harvests. The crop failure in 1846 already brought great hardship, but it was more bearable because the potatoes were still growing, and although the year 1847 was not favourable for the grain harvest, the fruit still grew to an unusual extent. Only the cold and wet weather of the previous year brought full misery. The potatoes failed so completely that in some places it did not seem worth the effort to harvest them, and the persistent rains made it impossible for many to harvest the grain, which had also ripened poorly. Damage from hail had spoiled a part of it before it was time, and the rains of autumn even destroyed the hay, which contained the only possibility for the maintenance of the cattle, which were not large in themselves. The pigs, the greatest wealth of the Spessartians and their main source of income, had to be sold early, when the potato harvest did not even provide food for the people, and even in relatively prosperous villages, e.g. in Heinrichsthal, where we still found people working threshing summer rye, the usual winter number of pigs had dropped from 150 to 17.

In the poorer villages and especially in the poorer households, supplies were therefore exhausted early. What potatoes and grain had been set aside for the next sowing season had to be used, and it has already become clear that very large sums will be needed to cover only this unavoidable demand. But even this did not help many. The hardship of the external workers, who lacked work, was passed on to the craftsmen, who worked without any prospect of being paid, and the few able-bodied members of the community did not believe they could take on the burden of

calling on loans from the district or the state for the large number of destitute people. This difficulty persisted even when the district government and the relief committees began to initiate support with humane zeal, and many a charitable institution was delayed because the municipal committees and boards shied away from accepting funds for the partial repayment of which they were supposed to be responsible. The government, for its part, had another difficulty, which became apparent here for the first time, namely the lack of grain stocks. - Whereas in earlier years the accumulation of the numerous taxes in kind had always provided the means to regulate prices or even to grant direct distributions, this source had dried up as a result of the Redemption Acts, which the year 1848 had brought about, and the caution of the municipalities had not yet been directed to a point which for poor areas will certainly deserve the most serious attention for a long time to come. I had already raised the question of storehouses in the Upper Silesian Emergency (Archive p. 319), and the years that have passed have shown that I had not dealt with it from the wrong point of view.

Necessity had gradually reduced the poor and one-sided food to the simplest forms. Meat, in itself not a common food, had ceased to be eaten by most; butter was almost non-existent, milk very rare. Only a few were still able to bake bread from their own stocks, since even the heather grain was exhausted, and almost everywhere we saw bread, it was bought or borrowed from the bakers, but then of the best quality. Some had only flour, from which they prepared unpalatable and feeble soups. Some still had peas, lentils or beans, certainly the best food under such conditions, but these were so little cultivated that they seemed to be more exceptions. Some used dried and roasted barley, or cut and dried turnips, and made an infusion of it, which was drunk as coffee, and the leaven of which was later eaten as a meal. Those who possessed even more means probably mixed this fabricate with real coffee beans. The potatoes, which had been taken ill from the ground, had fortunately not suffered any further destruction in the cellar; it was more a dry and therefore limited blight. In some places, however, they were imperfectly formed, extremely small and lacking in flour, and some were now laboriously searching for the tubers from the fields that had been forgotten or deliberately left behind in the autumn. Cabbage (sauerkraut) was relatively plentiful and therefore much used, as were turnips.

Even though many people were deprived of almost all of these meagre pleasures, we did not see any actual surrogates. All the things listed, as strange as some of them may seem and as alien as they would be to an otherwise well-behaved population, are nevertheless within the usual circle of Spessart food. The people are used to it, and as far as we could penetrate by our own observation, we found no surrogates that were not already prescribed in the usual life of the Spessartians. Many a rumour came to our ears of strange pleasures, but none could be confirmed, however frequent and careful our enquiries. The people preferred to starve rather than seek the substitutes that are so common among people who suddenly and quickly find themselves in such need. However, it must also be said that nowhere had the hardship reached such a level that, as was the case in Upper Silesia at the time, deaths from starvation actually occurred, and help arrived in time to strengthen even those who were suffering the most. Of course, those who suffered the most were those who were really ill, either because of recent accidents or because they had already been ill for a long time. Here the helplessness and abandonment became all the more miserable, as the people of Spessart are generally not very inclined to seek help, and in particular only make use of the doctor's assistance in exceptional cases, and then often enough only indirectly. It is almost fortunate that, once they have dispensed with the doctor, they are less likely to bungle and quack in

other respects than is otherwise customary in the country; at the most, they spend their money, sometimes their last, on masses for the sick. Thus we have seen a couple of cases of a typhoid nature, which, with such an expectative procedure as the modern diagnostic school could only ever wish for, with the mere consumption of fresh spring water, had entered into convalescence, admittedly somewhat late.

In general, the sickness rate was extremely low, although it should not be said that the state of health was entirely satisfactory. Everywhere the doctors complained about an unusual reduction in their work, which was not very extensive in itself, and although we made an effort to personally determine the number of sick people in the villages we visited, our results were fairly consistent.

In no part of the Spessart region were we able to find endemic diseases in any major distribution. It seems that the alternating fevers do not occur anywhere, not even in the places of the Kahl-Grund, which, like Schöllkrippen, are situated on and near a rather damp meadow ground. Also the goiters become rarer as one moves from Franconia into the Spessart, and they are only seen again towards the west, where the continuous covering of the coloured sandstone begins to weaken. Tuberculosis and phthisis are also relatively rare in the Spessart, for although we have always deliberately sought out the chronically ill, we have only found isolated cases in large villages, especially of pulmonary phthisis. The death registers also only rarely show consumption or emaciation. Even if the development of phthisis in these regions cannot be denied, it seems that the work done mainly in the forest, in the fields, in short in the open air, and the fact that the natives are not bound to the narrow, poor dwellings, have generally protected them from the phthisic predisposition. If the latter were more frequent, the harsh climate would probably easily promote the development of the disease. Immigrants who bring the disease itself or the predisposition to it with them have much to suffer: the rough air, the abrupt changes in temperature and atmospheric humidity, the frequent storms and thunderstorms, the high elevation of the land are all unfavourable moments for them. Other chest affections are not uncommon among the natives. Pneumonic and bronchitic diseases of all kinds are relatively common at certain times, and chronic bronchial catarrh, especially among older people, was not uncommon, so that Wells' statement, which I mentioned at an earlier meeting (February 16, 1850, Vol. I, p. 82), seemed to apply here as well, namely that there was a certain territorial exclusion of chronic (tuberculous) and acute (inflammatory) lung diseases. It was interesting to me to see that next to these inflammations of the respiratory organs, which were obviously caused by colds, the actual acute rheumatisms were very rare, as we found only one case of a pronounced heart disease, a stenosis with insufficiency of the mitral valve in a man in Königshofen (Kahlgrund).⁹ This was all the more striking as we frequently encountered, especially in older women, chronic, so-called gouty conditions of the joints, which began with pasty swellings and produced the most pronounced changes in the bone surfaces. Other bone affections were also frequently shown to us, both rhachitic conditions in children and carious ailments in adults.

⁹ Later reports, however, have revealed a somewhat higher incidence of heart disease. Thus I find in the report of Hrn. Agatz, who was stationed in Hain, I find 4 cases of chronic rheumatism from Hain, Laufach and Heinrichsthal, including 1 heart defect; 7 cases of chronic catarrh of the respiratory organs from Hain, Laufach and Heigenbrücken, including 2 heart defects; finally also 16 cases of pulmonary tuberculosis (6 from Hain, 3 from Wiesthal, 2 each from Laufach and Heinrichsthal, 1 each from Frohnhofen, Heigenbrücken, Habichtsthal, Jacobsthal).

As far as the conditions of cretinism and related disorders are concerned, I will return to this later, and will only note here that they hardly seem to occur in the interior of the Spessart.

It is peculiar and perhaps not without a special connection that very perfect dwarfs are found at various points in the Spessart region, and it is probably not by chance that dwarfs are frequently mentioned in the Spessart legends. Dr. Brönnert of Lohr told us about a relatively well-developed dwarf in Rechtenbach, which also gave birth, and in Schimborn in the Kahl-Grunde we saw two dwarfs ourselves, which showed excellent proportions. They were siblings:¹⁰ [26]

1) Georg Gumbel, 27 years old, 31 lbs. heavy, 100 cents. high, horizontal circumference of (skull) head 574 cents, longitudinal circumference 35 C., transverse circumference 33 C.; quite healthy, very alert. 2) Anna Maria Gumbel, 14 years old, 161 lbs. heavy, 77.5 C. high, horizontal circumference of head 44.5 C., longitudinal circumference 30.5, transverse circumference 30 C., very gracil, weak and pale, somewhat hydrocephalic and dull. -

The observation of paralysis agitans, which occurred in 3 siblings in Gross-Blankenbach in the Kahl-Grunde, but without any provable heredity, also deserves mention here. The brother, Peter Wissel, 33 years old, got the affection after an eclampsia infantilis. He was rather tall, very lean, had strong and relatively free arms, but his lower extremities, eyes and tongue were in constant agitation, so that he could only use them with extreme insecurity. He walked with flectir legs and a bent back, holding on to other objects with his arms. His sensorium was quite free. One of his sisters, on the other hand, is said to have gone mad after suffering from this disease; the other simply suffered from paralysis agitans. -

Typhoid diseases deserve more attention.

The actual medical history of the Spessart is still to be made, and for me it is all the more difficult to produce it, as the Würzburg archives do not seem to offer any substantial material for the former Chur-Mainzian lands. For Aschaffenburg I find mention that in 1398 the plague raged there, entire houses died out and the graves of the dead changed three times (Behlen and Merkel l. c. p. 17), and also that it prevailed in 1607 (p. 20). More detailed information can be found in the "Sagen des Spessarts [Legends of the Spessart]" by Adalb. v. Herrlein (Aschaff. 1851). Kreuz - Wertheim was so depopulated by the Black Death that only 8 inhabitants remained, who divided all property among themselves and were henceforth called the Achtherren (p. 139). Eschau was ravaged by hunger and the plague during the 30 Years' War, which took away entire households and only stopped when a new well was dug with the help of the Swedes, which gave no "plague water". [27]

In Sommerau, only 3 houses were spared, and of the subjects of Count von Erbach in Fürstenau, only half a dozen remained (p. 215). It was similar in Klingenberg, where of 32 young people who gathered every morning at a spring in front of the town, only 2 remained alive (p. 254). Orb was ravaged by the Swedes and hunger in 1634, and by the plague in the next, so that the town

¹⁰ The family tree I received later shows the following relationship: Caspar Gumbel, inhabitant of Glattbach, had a son Valentin, who married Anna Maria Wiesel of Schimborn and produced two sons, of whom the elder Johann Georg married Eva Maria Rosenberger, daughter of Johann Rosenberger of Schimborn, and produced the dwarf Georg Adam and later a regularly developed daughter, while the younger Johann Adam married Maria Anna Rosenberger out of wedlock and produced the dwarf Anna Maria, and later in marriage a normal daughter Maria Anna. Therefore, the derivation of the hereditary dwarfism can perhaps also be traced back to the Rosenberger family. - Incidentally, the two little ones have just started an industrial expedition and were seen for a while at the fair in Würzburg.

died out except for 10 families and the parish priest, the churchyard was insufficient and the corpses had to be buried in heaps on the "Pestacker" (p. 90). In Damm, the plague appeared as early as September 1606 with such ferocity that 350 people died in 4 weeks and only about 100 remained. In other parts of the Spessart region, the years 1605-1608, 1625, 1660 and 1668 are described as terrible plague years. Eichenberg died out except for one man, in Hösbach 5, in Wenighösbach 3 people remained, in Laufach one boy and one girl.

The Kahl - Grund was almost completely deserted: only one man remained from Schimborn who had taken military service, likewise from Dörnsteinbach; Krombach was rebuilt by foreign settlers. In Hörstein, 19 people died daily in 1625 and 400 in a few weeks. Streit died out completely, Ober-Schippach except for one person. In Erlenbach the plague prevailed in 1624, 1625 and 1632, and in the last year so severely that 125 people perished (pp. 263-268).

The university library still possesses many interesting manuscripts and printed decrees from these years, from which the spread of the epidemic over Franconian territory can be seen. I will come back to this another time. Here it may suffice to have shown how great losses this district already experienced at that time. For the later period, the clues are almost completely lacking. With the exception of the year 1727, when Bischbrunn (now Landger. Rothenbuch) near Rothenfels, we only have information about the year 1743, when English warriors carried flags as far as the old castle of the British Legion and the battle of Dettingen in the Freigericht was fought, in the famous work of the English chief physician Sir John Pringle (*Observations on the diseases of the Army*), which has recently become important for the history of the so-called cerebrospinal typhus. Only the war moved only in the Main plain, and the mountainous country may have remained free of suffering at that time.

On the epidemic conditions of the time from the beginning of our century to the year 1820, I find numerous, very valuable details in the writings of the late Dr. Joh. Reuss of Aschaffenburg, especially in his great work on the nature of exanthema (3 vols. 1814-1818). On the occurrence of smallpox, rubeola and scarlet fever, which he describes from the years 1800-1801, 1806, 1808, 1812-1816 and 1819 (I. p. 14. II. P. 9. III. p. 15. *Hufeland's Journ.* 1817. vol. 45. p. II. p. 18. - 1824. vol. 58. p. III. p. 74), it may only be mentioned here that he attempted to show with considerable accuracy the manner of their introduction, and that a most dangerous scarlet fever epidemic of 1812, which killed 64 people in Aschaffenburg alone and also spread to the Spessart, is among them. However, the typhoid diseases deserve greater attention, of which the war typhus of 1813 or, as Reuss very appropriately calls it, the spotted fever, has found an extremely careful treatment. There are everywhere excellent weather observations connected with it, and it may therefore be regretted all the more that a not insignificant difficulty has been created today by a partly very unfruitful polemic and by a strict distinction between typhus, nervous fever and certain rheumatic fevers. Already in the last half of November 1811, after warm, dry and uniform weather which had lasted since March, an epidemic fever broke out in a limited district of the old town of Aschaffenburg, which did not cease until March 1812. Reuss explains it as essentially rheumatic, at a later place for an inflammation in the ganglionic system. *Hufeland's Journ.* Bd. 58. St. III. p. 71) and describes 3 forms of the same, one inflammatory - rheumatic, one as synochus gastricus with tendency to typhus abdominalis, and one as typhus abdominalis or febris nervosa epigastrica seu praecordialis [abdominal typhus or epigastric or precordial nervous fever]. Because of this last form, the fever was generally considered to be an actual nervous fever and was treated as such by most

physicians. At the same time dysentery was rampant and in Heidelberg an epidemic childbed fever. (I. P. 56. 266-274. II. P. 14.)

After that came more inflammatory diseases, only in June and July 1812, when the weather was very harsh and cold, Reuss observed in several subjects an idiopathic nervous fever, the actual "brain burn". Around March 10, 1813, a French military division gathered around Aschaffenburg, which brought many sick people with chest inflammations, with intermittent fevers, with gastric coincidences, and then especially many with the actual brain burn, which "appeared under the form of homesickness". Only in one case was it doubtful whether typhus contagiosus was not present (I. 58. 96). Reuss discovered the first typhus patient on 31 March 1813 in Seligenstadt [29] in the person of the local doctor Braun, who had been infected by French military personnel returning from Poland on the Main and died. From this time onwards, typhus was rampant there until late in the year. In Bischbrunn, an entire family died out when a son who had fallen ill in East Prussia returned from the army - (I. p. 60). In April, the disease developed in Niedernberg, also through infection by soldiers passing by on the Main; 60-70 fell ill, of whom only 6 died, and the epidemic disappeared in 4 weeks; only in the following late year did it return through new infection, and affected all those still remaining like a plague (I. pp. 87-95). As early as the end of March, Reuss had organised a military hospital at Schmerlenbach, which received its first transport after the battle of Lützen (May 23) and in which typhus was the prevailing disease from that time on. However, mortality was low, as only 70 died between 19 March and 25 October. Twice the contagion was almost completely stifled, as each time the number of these sick people was considerably increased by new arrivals. At the end of September, when there were only a few convalescents left in the hospital, a fresh transport of this type of sick person, and the largest one at that, was brought there in such a miserable condition that from then on the contagion spread throughout the entire region, to which the sultry, humid and stormy weather, which had now set in and lasted until November, contributed in particular. It was also necessary to transfer some of the sick soldiers to the villages, where they stayed together with the inhabitants in rooms which, despite the sultry weather, were "still excessively heated by the heat of the stove". At the beginning of November, more than 100 peasants were already sick in some of the neighbouring villages, and there was a great mortality among them. Little by little the disease spread so that by the end of the year only a few villages in the department of Aschaffenburg remained free of it. In some districts, the majority of the inhabitants fell ill and the mortality rate was relatively high; in others, the number of cases of illness and death was lower. At the end of 1813, typhus seemed to have reached its highest level of spread; in January, the number of cases was already noticeably lower in most places and was only still increasing in those places where the epidemic developed later or only around this time. With certain fluctuations, it remained like this until April 1814, when it died out completely in most places. On August 10, Reuss saw the last of the sick of this kind at a very isolated mill in the deep Spessart. During the new troop marches in the spring of 1815, there was no new outbreak; only in the late year did one occur in a place in the Odenwald and one in the district court of Ama. - The mortality rate from the epidemic was highest among people between 50 and 70 years of age. In Klein-Ostheim, 13 of 213 patients died of typhus, in Dettingen 4 of 82 patients, in Haibach 12 of 160 patients (I. pp. 95-115. II. p. 16).

A smaller sequel to this occurred in 1816 - 17 in the interior of the Spessart. A soldier who had been discharged from the military hospitals in Mainz returned to his family in Krommenthal in June 1816 and fell ill again. His relatives soon followed, then other families. The disease lasted

until November, then died out, returned in January of the hunger year 1817 and continued until April, when it also broke out in a grocer's house in Wiesthal, where people frequented. It died out in the spring and did not break out again until August. Of 30 families in the village, only 10 - 12 were spared and 4 of the 40 sick people died. Reuss does not doubt the nature of this epidemic as spotted fever, and considers it identical to similar illnesses that occurred from March to July 1817 in Mainaschaff, Gross-Ostheim, Gailbach, Haibach and Strassbechenbach, and which he also suggests were derived from the Spessart region. He also mentions in passing an epidemic of dysentery in the late years. (II. p. XXXI - LVIII. Hufeland's Journ. vol. 58 St. III. p. 45.) In another place, Reuss finally mentions a dangerous inflammatory lung infection from the spring of 1817, from which up to 30 people died in the parish of Hainbuchenthal alone. (Hufeland's Journ. vol. 45 St. II. p. 20.)

At the end of 1818, Reuss again describes an "epidemic rheumatic fever, mostly with an inflammatory affection of the structures of the brain and spinal cord", which prevailed at the iron-works in Laufach, and another, which differed from typhus mainly by the lack of exanthema, which persisted from December 1818 to the end of June 1819 in a main street of Aschaffenburg. Hardly more than 60 people fell seriously ill with it and 8 - 9 died (Hufeland's Journ. Bd. 58 St. III. p. 52 - 71). -.

No more specific evidence has come to our knowledge from the years 1819-42; after that, however, typhoid diseases have repeatedly occurred in smaller epidemics and in sporadic cases they are found spread throughout the entire Spessart district at almost all times. For two villages I will give the excerpts which I myself made from the death registers of the parish priests, because from them quite definite views emerge. There were 7 deaths

Leidersbach (pop. 6 - 700)			Weibersbrunn (957 souls)		
in the year in Jan. and Feb.			in the year in Jan. and Feb.		
1841	21	5	27	3	3 = 6
1842	10	2	31	1	3 = 4
1843	23	3	32	10	5 = 15
1844	22	14	23	3	1 = 4
1845	12	2	15	2	1 = 3
1846	17	5	12	1	0 = 1
1847	33	6	37	4	4 = 8
1848	24	11	22	2	3 = 5
1849	16	4	22	4	1 = 5
1850	14	2	14	1	0 = 1
1851	21	4	20	1	2 = 3
1852		10		1	1 = 2

What is first noticeable in both tables is the uniform increase in mortality in the emergency year of 1847, which followed the bad harvest of 1846, a mortality which exceeds the ratio of the good years by a factor of three. In Leidersbach, the influence of the emergency came to bear relatively late and mainly affected older people, for of the 33 who died in the whole year, almost $\frac{1}{2}$ were in Nov. and Dec. and among these 7 were over 40 years old; of the 11 who died in Jan. and Feb. 1848, a number which exceeds the ratios of the good years by a factor of 3 - 4, 6 were also over 40 years of age, so that the greater participation of the older years of life, which can also be

proven elsewhere, although often doubted, is evident here. In 1844, when 14 people died in Leidersbach during the first two months, a very unusual number, 11 of them were children, the oldest of whom was 42 years old, and it was a cramping (i.e. probably wheezing) cough epidemic that killed them. In 1847, on the other hand, after the mis-growth of the grain, among the 6 who died in Jan. and Feb. there were 5 who had suffered from phlegm or nervous fever (typhus).

In Weibersbrunn, there were typical epidemics during the years 1842-44, where the mortality rate in the first two years almost reached the level of the emergency year 1847, and in 1843 the death rate was so high in January that as many people were buried in the first two months as in good times during the whole year. - The same epidemic of 1845 also reached other villages in the district of Rothenbuch. Rothenbuch, especially Rothenbuch itself and Neuhütten. The last epidemic of typhus seems to have been in the district of Rothenfels. According to a report by Dr. Herterich of Rothenfels, there was a typhus epidemic in Marienbrunn in 1849 and since then the illnesses, although sporadic, have not completely disappeared, especially in Rothenfels, Bergrothenfels and Neustadt, where a more severe form has developed since July of last year in such a way that there were usually 2, 3, 4 cases at the same time. According to the testimony of Dr. Goy and Mr. Brönnert of Lohr, this epidemic persisted until the first months of this year, to such an extent that about 50 out of about 600 people fell ill. The place is damp and very rich in springs. The disease mainly caused headache and some chest symptoms, sometimes exanthema, and was highly contagious. One case was mentioned in particular, where a woman in childbed, whose husband was ill, was infected, infected her midwife, who then brought the disease to the members of her household. -

Of the remaining diseases, it should be mentioned that cancer seemed to be very rare on the whole, and we also saw few cases of water sickness. Acute exanthema did not occur at all; syphilis was relatively rare, scabies and head sores very frequent. Of entozoa, the common forms of which are often present in children, one doubtful case of echinococcosis of the liver in a 14-year-old girl in Rothenbuch is worth mentioning. Not infrequently we saw chronic eye diseases, especially staphylomatous degenerations, which seem easy to understand in the smoky atmosphere of the people. -

This overview of the endemic constitution is followed by a brief overview of the mortality statistics of the districts under discussion. This is based on the reports of the district courts ordered by the Ministry on the occasion of the present emergency, which in turn are based on the death lists of the parish priests. Unfortunately, only the average number of deaths for the three-year period 1849-51 was requested on this occasion, and the data on the mortality ratios of the individual years were only submitted in exceptional cases: [33]

I. Rothenbuch District Court:

1. Bischbrunn	627 Inhab.	15 deaths	= 2.3 pct.
2. Habichtstha	292		= 2.0
3. Hain	591	10	= 1.6
4 Heigenbrücken	685		= 2.1
5 Heimbuchenthal	747		= 2.6
6. Heinrichsthal	645		= 2.4
7. Hessenthal	411		= 1.4
8. Jacobsthal	261		= 1.9

9. Krausenbach	487		= 2.2
10. Cromenthal	205		= 2.4
11. Laufach	1.588		= 1.9
12. Neudorf	652		= 1.9
13. Neuhütten	881		= 1.9
14 Rothenbuch	1.134	29	= 2.5
15 Waldaschaff	1.443		= 2.5
16 Weibersbrunn	960		= 1.9
17 Wiesthal	653		= 2.6
18. Wintersbach	718	18	= 2.5
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	12.980	290	= 2.2.

Lohr District Court:

1. Frammersbach	2,213 Inhab.	54 deaths	= 2.4 pCt.
2 Langenprozelten	1.072	32	= 2.9
3. Lohr	3.882	113	= 2.9
4. Neuendorf with nantenbach		268	= 3.9
5. Partenstein	883	34	= 3.8
6. Rechtenbach	703	15	= 2.1
7 Rodenbach	424	10	= 2.3
8. Rupertshütten	578	15=	2.3
9. Wiesen	930	25	= 2.6
10 Wombach	366	53	= 1.4
<hr/>			
	12.202	348	= 2.8 [34]

III. district court of Alzenau:

1. Albstadt	515 Inw.	9 Deaths=	1.7 pCt.
2. Alzenau	1.048	24	= 2.2
3. Gross-Blankenbach	184	11	= 5.9
4. Klein Blankenbach	272	7	= 2.5
5. Daxberg	218	4	= 1.8
6. Dörnsteinbach	184	11	= 5.9
7. Edelbach	363	4	= 1.1
8. Geiselbach	647	14	= 2.1
9. Hemsbach	181	3	= 1.6
10. Hörstein	1.200	87	= 7.2
11. Hofstetten	282	10	= 3.5
12. Huckelheim	573	20	= 3.4
13. Kälberau	289	7	= 2.4
14 Kahl am Main	588	48	= 8.1
15 Gross-Kahl	281	5	= 1.7
16. Klein-Kahl	224	12	= 5.4

17. Königshofen	441	11	= 2.4
18. Krombach	1.039	30	= 2.8
19. Gross-Laudenbach	244	5	= 2.0
20. Kein-Laudenbach	166	2	= 1.2
21. Mensengesäss	276	10	= 3.9
22. Michelbach	806	14	= 1.7
23. Mömbris	1.596	38	= 2.3
24. Niedersteinbach	201	11	= 5.4
25. Omersbach	326	9	= 2.7
26. Schimborn	472	15	= 3.1
27. Schneppenbach	430	13	= 3.0
28. Schöllkrippen	852	10	= 1.1
29. Sommerkahl	791	15	= 1.8
30. Wasserlos	673	11	= 1.6
31. Gross-Welmizheim	450	36	= 8.0
32. Ober-Western	429	12	= 2.7
33. Unter-Western	233	6	= 2.5
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	16.474	524	= 3.1 [35]

IV. Orb District Court:

1. Alsberg with Hausen	248 Inhab.	4 deaths	= 1.6 pCt.
2. Aufenau	612	14	= 2.2
3. Aura	570	18	= 3.1
4. Buzrggioss joss w. Deutelbach	390	7	= 1.6
5. Höchst	510	12	= 2.3
6. Cassel	1.089	25	= 2.2
7. Lettgenbrunn with vilbach	287	5	= 1.7
8. Mernes	648	16	= 2.3
9. Mittelsiun	830	10	= 1.2
10. Neudorf	300	7	= 2.3
11. Oberndorf	631	15	= 2.3
12. Obersinn	839	23	= 2.7
13. Orb with Friedrichsthal	5.000	127	= 2.5
14. Pfaffenhausen	450	14	= 3.1
15. Wirtheim	985	25	= 2.5
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	13.389	322	= 2.4

If we calculate the ordinary mortality cipher for the individual districts, we obtain the following. Result. The following died in the district court

Rothensbuch	1 under 47.7 inhabitants
Orb	41.5
Lohr	35.0

Alzenau 31.4

If we compare these figures with those for the whole of Bavaria and Lower Franconia, we can of course not provide any for the corresponding years; since in Hermann's statistics the mortality tables only extend to the year 1843/44. However, the figures for the latter year would be all the more suitable for comparison, as mortality in that year was lower than in any other year of the period 1838-43. The following are noted for the year 1843/44 [36].

for Bavaria	125:382 deaths with	444:0327 inhabitants,
for Lower Franconia	14.651	58.7887 ;

From this we get the ratio of the number of deaths to the population for

Bayern	= 1: 35.4 or	2.823 pCt.
Lower Franconia	= 1 : 40.1	2.492

For the year 1843, the mortality cipher for

England	2,185 pCt.
France	2.361
Prussia	2.709

(Cf. Med. Reform 1848. No. 7. p. 40).

It can therefore be seen that the mortality rate in Lower Franconia was almost 4 percent lower than in Bavaria as a whole, and that of the Spessart districts, two, Rothenbuch and Orb, had an even more favourable ratio than Lower Franconia, especially the former, where the mortality rate was 2 percent lower than in Lower Franconia as a whole. Lohr, on the other hand, was almost exactly equal to the total mortality in the kingdom, while Alzenau had a mortality 3 pM. greater than Bavaria, and a mortality 7 PM. higher than Lower Franconia. Rothenbuch's mortality ratios were very close to the extremely favourable experiences of England, Orb and Lower Franconia were almost in the same ratio as France, Lohr and Bavaria slightly exceeded the figures for Prussia.

According to the compilations made by Edw. Smith from the tables of the Registrar-General (Med. Times 1851. April pag. 422), the general mortality in England during the year 1841 varied according to the individual divisions of the country between 1:38.3 and 1:51.3; it amounted to

for all England	1 : 45.7
London	1 : 39.7
Cheshire and Lancashire	1 : 38.3
Wales	1 : 51.3.

Here, too, we see that the part of England that might be closest to Spessart in terms of local conditions, North and South Wales, offers the most favourable conditions, while London [37] and some factory districts show less favourable figures than Orb and Rothenbuch.

On the whole, this is certainly a surprising result, all the more surprising because our earlier description would have suggested the opposite. It is a result that must be further tested by more detailed statistical investigations, but which, if confirmed, will prove all the more convincingly how hygienically favourable the mountain air, the elevated location, the high forest areas and the outdoor work have an effect, despite all the opposing obstacles of social life. Furthermore, it is striking that Alzenau, which we thought we should favour in many other directions, has less favourable mortality conditions than all the other districts, and even less favourable than the whole of Bavaria

and the factory districts of England. But here, too, characteristic differences can be found, if one takes into account the territorial conditions. Of the 33 villages in the district, more than half, namely 17, have a mortality rate of 2.5 to 8.1. However, this is distributed very unevenly:

1. localities on the Main and in the Freigericht:

1. Kahl am Main	8.1 pCt.
2. large-Welmizheim	8.0
3. Hörstein	7.2

Medium	7.7 m
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2. localities in the Kahl-Grunde:

1. Gross-Blankenbach	5.9 pct.
2. Klein-Kahl	5.4
3. Unter-Steinbach	5.4
4. Mensengesäss	3.9
5. Schimborn	3.1
6. Klein-Blankenbach	2.5

Medium	4.3	[38]
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3. villages in the western ridge next to the Kahl-Grund:

1. Dörnsteinbach	5.9 pCt.
2. Hofstetten	3.5
3. Huckelheim	3.4
4. Schneppenbach	3.0
5. Krombach	2.8
6. Omersbach	2.7 ,
7. Ober-Western	2.7
8. Unter-Western	2.5

Medium	3.3 F
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For the remaining 16 localities, this leaves a mortality of 1.7 pCt. on average.

There, where the conditions seem to be most favourable, socially at any rate the best, in the Main plain, there is a quite surprising mortality, the causes of which must first be investigated. Next comes a part of the Kahl - Grund, and it seems to me that it is precisely the narrower, both upper and lower valleys of the same, in which the greater mortality ratio is found, while in the wider part, e.g. in Schöllkrippen and Sommerkahl, there is an extraordinarily favourable condition. Only in the third and relatively favourable line are the western mountain villages, none of which I unfortunately know by sight, so that here too a more favourable influence of the elevation seems to emerge. If we count only the 3 villages of the Main valley, Hörstein, Kahl a. M. and Gross-Welmizheim with 2238 inhabitants and 171 deaths, we get a mortality ratio of 2.5 pct. or 1 death per 40.3 inhabitants for the rest of the Alzenau district, which can certainly be called favourable. It is of particular

interest that most of the places listed in this region in the plagues of the 17th century also appear in our list as hygienically unfavourable.

Similar considerations could also be made for the villages in the other three districts, which were noted to be unfavourable in terms of mortality; in particular, the influence of the narrow valley bottoms, e.g. the upper Joss, Sinn, Kinzig, Aschaff and Lohrerbach bottoms, should also be considered in these cases; however, greater local knowledge on the one hand, and greater statistical material on the other, are required in order to finally decide this question. May it suffice for the time being to have drawn attention to the importance of these local statistics; perhaps men will be found on the spot who will pursue these questions further and collect the facts on which a well-founded history of the state of health and disease in the Spessart can be built. - After we have thus gained an overview of the endemic constitution and the mortality conditions, we can easily describe the presently prevailing disease character. Of acute diseases we found the two main forms which the Spessart generally presents, inflammatory affections of the thoracic organs and typhoid diseases, and indeed both directly next to each other, so that it sometimes required a very careful examination in order not to lose the diagnostic path. Not only did we see pneumonia and typhoid in the same place at the same time, e.g. in Leidersbach, Weibersbrunn, Rothenbuch, but this also occurred in one and the same family, as in Weibersbrunn, where the father lay in bed with pneumonia being treated, while the 26-year-old daughter was just recovering from typhoid, which had not been treated for 6 weeks. In Leidersbach, this coincidence of typhoid and inflammatory conditions was all the more striking because here, as already mentioned, the mortality of January and half of February (up to the 22nd) reached the annual level of favourable periods. This mortality, if one adds the only death that occurred in October 1851, was distributed as follows:

- 3 deaths from typhoid fever in the same family,
- 2 of Croup in children of the same family,
- 6 for people over 40 (47, 55, 62, 69, 79, 84 y.)

11 deaths.

In the district of Alzenau we did not find any fresh cases of typhoid fever; the last cases treated by Dr. Ulrich, who was in charge of the entire practice of the upper Kahl-Grund and the neighbouring mountain districts from Schöllkrippen, concerned a 51-year-old man from Omersbach, who died after a 9-day illness on 8th January, and a 12-year-old boy from Geiselbach, who also died after a day-long illness on 1st November 1851. On the other hand, we saw repeated cases of acute chest affections even in the Kahl-Grund (along with a case of acute angina parotidea in an 11-year-old boy in Schöllkrippen), of which I would like to mention two latent pneumonias in particular. The first was found in a 17-year-old, non-menstruating girl in Sommerkahl, who had been ill for 5 days and did not present the slightest appearance of a chest affection. At first sight she presented the picture of typhoid fever in a young, strong body: red, somewhat bluish-rosy face, restlessness with an expression of slight stupor, somewhat staring and shining eyes, situs prostratus. The relatives said that she complained mainly of headaches, spent the nights restlessly, often talked out of her mind, froze a lot, hardly coughed at all. The examination revealed a suppressed, irritable pulse of 72 beats, a hot head, a moist, whitish tongue, stools stopped with a painless body, a dull percussion sound in the back right under the scapula and lack of respiration, a fine bubbly rattling sound when coughing; sputum extremely slight. -

We saw a similar case in Königshofen with a 59-year-old man who had an old stenosis of the mitral valve. He complained mainly of pain in the head and abdomen, as well as painful diarrhoea and pain in the right ear, where nothing could be seen. Again, little fever, only an intermittent and irregular pulse, moist, whitish tongue, empty and soft abdomen; the pneumonia sat on the upper left in the region of the scapula. - In both cases, food had been scarce for some time and had been almost completely lacking in the last few days; the strength of the patients had sunk very much, and so the low level of excitement and the poor reaction could probably be attributed to the lack of food.

As far as the types found are concerned, we first had the opportunity to investigate their occurrence under very peculiar circumstances in Leidersbach. Rumour had it that there was an outbreak of famine typhus in the family of Hermann, a neighbour of the village, and in fact an investigation revealed that in this family, which consisted of Hermann and his two sons, as well as a sister-in-law and her illegitimate son, i.e. 6 persons, 5 had fallen ill and 3 had died in quick succession. Only the husband had been spared; the wife, one son and the sister-in-law had died, the other two boys were found in a weak convalescence. The investigation could therefore only deal to a small extent with objective, direct ascertainment of facts; most of the events belonged to the past and could only be ascertained by questioning various witnesses.

Leidersbach is very extensive, the houses and farmsteads either scattered or in groups, in a rather narrow, but not very deep valley, which is cut through by a very clear and fast-flowing, rather large stream. On both sides of the stream are meadows rich in springs, and close to them, where the side slopes of the valley wall begin, are the houses, partly terraced one behind the other. The back wall of the houses, which are surrounded by a damp, manure-filled courtyard, gardens, clover land, etc., is therefore a very small part of the valley. [41] is therefore usually higher up the hill than the front, and the ground usually touches it up to the level of the floor of the living rooms. Hermann's house was situated somewhat higher, behind a lower farmstead, on the sunny side of the valley in its upper part. It was a small, old, dilapidated house, which contained a stable at the bottom with a lean "little bull" that had already been pawned, and whose rear wall went completely into the mountain. A rather high staircase led up to the otherwise one-storey house, which enclosed a very small forecourt with a kitchen, a single, narrow and low room and a dark, damp and cold closet. The walls of the latter were almost completely wet and those of the room were also covered with smoke and blackish mould. Narrow, low windows with sliding sashes that could be opened, and a large, clay stove with stove benches formed the further furnishings of the room, which was largely filled by a bed that was not quite clean but had a thick feather cover, an old table and a window sill. A second, but very dirty and angular bed took up a not insignificant part of the room. The six people had lived in this room and slept in the two beds, so that Hermann's 13-year-old son lay in bed with his sister-in-law, who had her bed in the chamber and who "loved him very much". The first to fall ill was the mother of the family, Margaretha née Salg, 53 years old, who until then had been quite healthy except for an old, mobile hernia. After doing some washing last December, she fell ill with frost, complained of her abdomen and lay down. However, she had neither vomiting, nor diarrhoea, nor constipation, nor was the abdomen said to be particularly distended; the hernia was reducible at all times and was brought back once shortly before death. She also had no side stitches, nor complaints about the chest. She shivered constantly, was very thirsty, chatted at night and had flake-reading in the last time, but the skin was not said to be burning or particularly

hot, the tongue was not dry or brown and no exanthema was noticed. She died after 8 days on the 26th of December, according to her husband's statement contemplatively.

Her sister, Katharina Salg, 48 years old, took care of the washing of the bedding and clothing left behind soon after the funeral, and then also used these beds herself. Only eight days after her sister's death, she herself fell ill with frost, heat, headaches, - was always shivering, had a lot of discharge, so that on one day up to 14, partly involuntary discharges occurred, but the tongue was neither brown nor dry. Her skin was said to be cool, never sweaty; as often as she was given food, she ate and even asked for soup three times; she did not drink much water, however. She did not speak out of her mind, is said to have been contemplative until the end, and only her hearing suffered. She died on 25 January.

Johann Hermann, the second, 13-year-old son, had already laid before her, although his first illness seems to have been quite simultaneous with that of his aunt. He is said to have always been miserable and to have had a nasty colour. Already during the autumn he often complained of abdominal pain, and several times he defecated worms. He rarely coughed. The present illness developed without a definite starting point, especially without chills. He felt dull, looked miserable, complained of the abdomen, shivered, had great heat and pains in the head, became hard of hearing, insensible, got much, partly unconscious deviation in the last time, as well as fuliginous coating of the gums and lips. Photophobia and rash were not observed. Death on 26 January, after being ill for about a month.

Around the beginning of the second week of January, the 23-year-old son of the sister-in-law, Johann Salg, also fell ill. Although he felt weak, he concealed it at first; the illness also began without a clear frost and his chest remained completely clear. On the other hand, he sweated a lot, was very thirsty and had no appetite, although his tongue was not said to be brown; his head was burning hot and his hearing loss, which had already existed before the illness, increased to complete deafness with roaring in his ears. The urine was left scanty and dark brown. The constipation was later followed by diarrhoea with 4-5 bowel movements daily. - When we saw the patient (on 22 February), he was out of bed, but still looked very pale and emaciated, was very dull and hard of hearing, the skin was desquamated, the urine had become more abundant and lighter, the tongue moist and quite clean. The appetite was also restored.

It was not until the end of January that Hermann's eldest son, the 14-year-old Franz, who until then had taken care of the business outside the house, began to complain. He felt very weak, had a bloated, very painful abdomen, a clogged tongue, diarrhoea with 4 - 5 thin bowel movements with many winds, had little appetite, but also little thirst, frequent heat, but no real frost. His head was said to have remained free, and he had therefore never laid down permanently. At our visit after 3-4 weeks of illness) he was in full convalescence, still looked very pale and dull, but had [43] moderate appetite and a moist, somewhat whitish tongue. Face and chest covered with freckles with single rosy spots between them.

No doctor had been called to Hülle during this entire small endemic; only the man, when things got too bad, had spent his last money to have some masses read. It is not possible to say for sure whether the illness histories, which were obtained with great effort through long examinations, contain false information or large gaps. After all, the events were still fresh in our memory and the two convalescents were present as participants in the illnesses themselves, so that in our opinion there remained no significant doubt about the correctness of our conclusions. In the individual stories there were some contradictions, some major differences, but the fact remains that on the

whole the course was analogous and the local phenomena were fairly similar. The mother dies after being ill for eight days with cerebral and abdominal symptoms. Eight days later we see her sister and her son fall ill: the former dies after little more than 3 weeks, the son one day later, after the abdominal manifestations had become more prominent in the sister, but the typhoid conditions in the central nervous and digestive apparatus had developed strongly in the son. Hardly 8 days after the sister, her son fell ill and soon after the death of the sister and the younger son of Hermann, the illness of the older son followed; we found both, the one after 6 weeks, the other after more than 3 weeks in a barely secured convalescence. The husband, who was most busy outdoors, did not fall ill at all; the elder son, to whom the outside business, the errands, etc. were mostly entrusted, fell ill the latest and most gently. The woman who fell ill first was followed by her sister, who had cared for her the most, cleaned her laundry after her death and then slept with her nephew and son in the beds they had left behind. The illnesses occurred at fairly regular intervals, although I do not wish to limit their time too precisely.

Can one still doubt here that an infectious herd had formed, which caused one inhabitant after the other to succumb to a disease, the typhoid nature of which was soon more, soon less prominent, and in which the symptoms of reaction, especially the reflex movements of the vascular apparatus, developed all the less violently, the more the bodies had already suffered from a deficiency which, if not carried to extremes, had nevertheless existed for a long time? There was no reason to connect the lack of food with the formation of such an infectious army, for the man's resources had been completely exhausted only recently and the bread we found in his house was very well baked and strong baker's bread. In other families of the same place we found less rather than more food, and yet nowhere, although we visited all the sick people we could find, did similar conditions exist, nor did typhoid diseases occur at all. The situation here was therefore quite similar to that which I found in the Upper Silesian famine epidemic on the largest scale, limited to a single house: the formation of an infectious horde in an inhabited house with almost complete infection of all inhabitants without propagation to the neighbours. The view which I developed at that time, namely that the houses themselves contain the endemic symptoms of disease and that under certain weather or other external conditions these ever-present pests take effect and manifest themselves, seemed to be thoroughly confirmed here. -.

Only in Weibersbrunn was there anything approaching this questionable finding. This rather large and extensive village with about 1,000 inhabitants lies high up in the middle of the Spessart, at the north-western foot of the Geiersberg in a narrow, enclosed valley, which is flowed through by a small stream that later flows into the Hafenlohr and is partly filled with marshy meadows. Most of the houses stand on the valley walls, but some are rather low and still on meadow ground. The sides of the valley, especially the northern one, are covered with farmland and only to the south and east does the forest terrain come closer, so that frequent fog can accumulate in the valley. Formerly an extensive glassworks, the inhabitants have been in increasing hardship since it came to a standstill, and the sterility of their fields does not provide them with a rich profit, even when they work hard: every year of hardship has therefore immediately had its effects here, and minor epidemics of typhoid diseases have returned from time to time.

Here, on the shady side of the valley, we found a house that was not exactly one of the worst, was relatively spacious, not too low, and whose inhabitants were by no means badly affected by hardship. But the overcrowding, the encombrement of the living room was all the more striking. The family was very large, if I am not mistaken, at least 8 people strong, and when we entered their

living room one morning, we found it completely filled with people and utensils. Two beds with sick children, a third empty one, an oven emitting glowing air, etc. took up most of the room. In a corner between the wall and the stove stood a bed in which the 7-year-old daughter, Francisca Molitor, was lying. According to the mother's statement, she had fallen ill 8 weeks ago under frost and heat, had complained about her head and chest, later also about her body, lost her appetite, had diarrhoea and a burning hot skin, fuliginous coating of the lips and teeth, and had been delirious for 3 weeks. A doctor had not been called, but in view of the great thirst, he had been made to drink fresh, cold well water diligently. A rash broke out on her face 14 days ago and for about 8 days the little patient began to feel a little better, sometimes got out of bed, got a little appetite, but was still very weak. When we saw her (on 23 February), she was lying close behind the excessively heated stove with a hot, reddened face and sweating. On the skin, especially of the upper extremities, there was a fine desquamation, on the chest and abdomen fine, light-coloured vesicles, and on the face a peculiar, measles-like exanthema. The latter formed pale bluish-red spots, slightly raised in the centre and often with a vesicle on the tip, a few lines in diameter, which did not disappear completely under the pressure of the finger, were partly very dense, but single, partly in groups and confluent, and in particular abutted one another almost continuously on the forehead, cheeks and chin.

In the other bed lay the older, 11-year-old sister Amalie, who had left school 18 days ago and was ill with frost, heat and complaints about her head and chest. At first she was constipated, but for the last 3-4 days she has had diarrhoea following the administration of Senna infusion, which promotes 3-4 thin, but not involuntary, discharges. At night she was talking madly, also sometimes during the day. She presented us with the true habitus typhosus: prosternal position, blue-red, strongly injected, collapsed cheeks, staring, shining eyes with strong secretion drying into dirty brownish crusts, open mouth with fuliginous covering of dry lips and teeth, frequent, rattling, moaning respiration, interrupted by continual coughing. The skin is burning hot, covered with disgusting smelling perspiration, and vesicles are scattered over the abdomen. The tongue is moist, with a yellow-brownish coating; the abdomen is moderately full, soft, and somewhat painful; the epigastric region is somewhat dull; the spleen is enlarged. [46]

The pulse was rapid, moderately full, but easy to push away, 114 beats per minute; the heart-beat was not palpable, on auscultation faint, not very widespread sounds. In the minute 32 inspirations were counted, the percussion sound was full and sonorous pretty much in all parts of the thorax, the respiration sound posteriorly and superiorly indeterminate, somewhat whistling, superiorly amplified and somewhat harsh, anteriorly strong rales with visible vibration of the chest wall. The head is hot, the responses poor, insufficient and slow.

Apart from these two, there was also an older brother who was epileptic and afflicted with haemoptysis.¹¹ [47]

¹¹ Dr. Kam m, the court physician in Rothenbuch, who accompanied us and continued the treatment of these patients, wrote to me later (19 March) about them: "Amalie M. is currently convalescent, although this stage is somewhat protracted. She still has only a catarrhal affection of the respiratory organs, which is disappearing more and more on emulsives with Narcotics. An exanthema, similar to that of her 7-year-old sister, has also developed, spreading over the forehead, face and extremities, as well as over the stomach region. It is rough to the touch, desquamated, and consists of red and white looking nodules. The scales are small, just like those of her sister. Could there not have been a febris morbillosa here with a strong gastric complication? all the more so as her sister also had the same rash. The epileptic brother, afflicted with haemoptysis, had to seek bed again a few days ago, as

We found a third typhoid patient by chance in a neighbouring house, where the father was dying of pneumonia. Here too, the local conditions were not as unfavourable as in Leidersbach. Elisabeth Feth, 26 years old, had felt unwell and shivery 6 weeks ago on a walk to Aschaffenburg and back. When she returned home she was attacked by chills, which were followed by great heat and exhaustion. She did not have a headache, but later she began to have night delirium, from which she could be awakened by calling her, and which lasted for three days in particular. Diarrhoea had been present from the beginning, so that 3-4 thin, bilious stools were passed daily, and it persisted throughout the whole illness. Her tongue was very coated, fuliginous, her appetite was lacking, but she felt "much burning" and always drank fresh well water. The abdomen was distended and painful, especially she felt pressure around the navel. The chest remained free; exanthema was not noticed. Later, she began to sweat, and with it an improvement. We found her out of bed, in full convalescence, very emaciated, and the tongue very reddened, partly yellow-reddish, cracked and shaggy, as the fuliginous covering had only recently loosened. - The mother, who had slept with her in bed, was not ill. -

In Rothenbuch, the seat of the district court, a larger town situated in a more flat valley, we saw only one person who could be considered typhoid. It was a 26-year-old girl in a very inconveniently situated house, extremely narrowly enclosed between other houses, yards, manure heaps and manure pits, where in a small, low and dark room almost the whole available space was filled with beds. Here, too, the sick woman first slept by the stove. Shortly after the cessation of her menstruation 8 days ago, she had fallen ill with frost; great weakness, complaining of head, chest and abdomen. Her appetite dwindled, while her stool was constantly stopped; the nights were restless, she dreamed a lot and sometimes spoke madly. When we saw her (23 February), she was very weak, complained of pain in the forehead and buzzing in the head, her face was red, her eyes shining, her skin dry and moderately hot, her tongue moist, red, slightly whitish, her abdomen full, somewhat painful, in the splenic region extended dull percussion. The pulse made 116 faint, small and weak beats. She coughed from time to time, but the percussion made a good sound everywhere; auscultation showed a very faint vesicular murmur. The neck, abdomen, arms and legs were covered with small red stipples, which were at first regarded as petechiae, but after repeated examination the possibility was admitted that they were extravasations after flea bites. The following morning, when I saw the patient again, there was a great remission. After she had been given an opening by means of a clyster, the brittleness of the skin had been overcome by washing, the temperature

a feverish catarrh attacked him". Strangely enough, the same question is raised here that was also asked in Upper Silesia, and which a German clinician has again found himself compelled to renew for that epidemic. In fact, this Spessartian exanthema was morbilliform, but it differed from the Upper Silesian one, apart from various other characteristics, by the time of its appearance. Here it undoubtedly belonged to the convalescence; and had, as it seemed, a critical, depurative character, while the Upper Silesian belonged to the developing disease as a coëffect, as an accidental symptom, and had no significance at all for the course of the disease. If there had been measles cases in the Spessart, which to my knowledge was not the case, the question would have had to be raised whether there was not a complication here; but it seems to me impossible to regard as measles a disease of this kind which only leads to the eruption of a depurative exanthema after it has existed for 4 - 6 weeks with all its vehemence and danger. We have not doubted in loco the typhoid nature of the disease, and the whole course of the manifestations, the length of the convalescence, the nature of the organs affected (digestive tract, spleen, respiratory mucous membrane, head, etc.) seem only to confirm this view. We did not see any exanthema, i.e. *Roseola typhosa*, but the time when this should have been present was over. Only our prognosis was not confirmed at all, because we had not hoped for any improvement for little Amalie M..

had been somewhat reduced by means of cooling agents, and she had been given a warm soup after a long period of deprivation, she was much better.¹²

Apart from this case, we also saw a young man in Waldaschaff who had been employed on the railway at Hain and had returned home with abdominal typhus; he was in the last week of the disease and in convalescence, treated by Mr Kamm. In the municipal hospital in Aschaffenburg there were 3 typhoid patients, 2 in convalescence, journeymen from the town, 1, as it seemed, moribund, also railway workers from Klein-Ostheim. This was all that we saw in this direction and could ascertain through enquiries.¹³ Nevertheless, it was enough to prove the sporadic presence of dangerous forms of the disease in groups at individual points, which could have spread dangerously under certain circumstances, especially since earlier precedents were present. However, there was no tendency to propagation or to truly contagious multiplication; not a single one of the cases we observed was quite fresh: the youngest disease was 18 days old, the majority were already in declared convalescence, so that the period of the more frequent diseases actually had to be regarded as the time before 3-8 weeks, i.e. the time from the end of December to the beginning of February. It therefore seemed all the less necessary to organise special major measures, which would only have caused concern among the population, and the Commission therefore confined itself to arranging a general visitation of all the villages, in order to be able to continue the control of the character of the disease. -

In addition to these types, whose course was only insignificantly altered by the simultaneous lack of food, and on the development of which necessity could hardly be attributed an influence, we observed, especially in Weibersbrunn, a small number of peculiar cases in which necessity seemed to be the determining factor. I have already pointed out that in the case of latent pneumonias of the Kahl-Grund, inadequate nutrition could well be regarded as the motive for the inadequate reaction. In these cases, however, the distress had not reached the high degree where positive manifestations of the disorder already appear on the body. In other families, however, this could not be denied. In some people chronic illnesses had already existed for a long time, which in themselves, by reducing or completely eliminating the ability to work and earn a living, accelerated the onset of the distress and increased it more quickly to a more significant level. Some of them lay almost completely helpless and abandoned; it was believed that they were all the less worthy of attention in the present investigation, as they had been ill for so long, and we often enough had to ask again and again whether there were not still sick people in the place before we were led to them. Another category of hunger conditions, however, was formed by those sick people who had been relatively healthy and able to work until the onset of the emergency, but whose strength then sank from month to month under the increasing lack, and in the end the weakened, run-down body

¹² After 10 days the convalescence was declared, as Mr. Kamm reports.

¹³ In his later report, after the ordered visitation of the villages had taken place, Mr. Kamm from Neuhütten, a village north of Rothenbuch in the interior of the Spessart, reported 2 cases of typhus in a 23-year-old girl and a 38-year-old woman, which he described as abdominal and cerebral typhus. Both had already been ill for 10 - 12 days when he discovered them, were shortly improved and soon entered convalescence. In the girl, innumerable sedes, cold skin, profuse perspiration, miliaria alba over the whole body, small thread-like, rapid pulse, cracked, brown tongue, very heavy respiration with overfilled lungs; In women, retarded stool, complete apathy, unconsciousness and indifference, hot, dry skin, glassy eye, somewhat smaller, rapid pulse and more slimy tongue, coated towards the root, dull roaring in the ears besides hearing loss, difficult answers to questions asked. - Lack of food could be blamed all the less here, as the girl in particular was the daughter of wealthy parents.

contracted the definite illness through a lighter pest, e.g. a cold. The state of hunger thus formed the predisposition for a cold that might otherwise have been hardly noticed or avoided altogether, just as under other circumstances it can predispose to typhoid disease. The actual disease thus acquired a peculiar character, an unusual severity and a striking duration. We saw such complications of simple and mild diseases with the hunger state mainly of two kinds, namely with bronchial and intestinal catarrh, of which the former in particular took on a very special appearance, in that the bronchial affection appeared quite slight and the hunger state approached a more or less typhoid appearance. We saw this particularly pronounced in the Fleckenstein family in Weibersbrunn. [50]

Joh. Fleckenstein, called Stocker, day labourer, lived mainly from forest work and grew some potatoes on the side. His miserable hut is located at the end of the village on the valley floor on the sunny side. He had had 10 children with his wife Marianne, 7 of whom are still alive. His potatoes were bad this year, so that he has not had any since Martinmas. Since that time he has been feeding himself more and more meagrely, as his earnings were only barely sufficient to buy food for his large family. One of his sons had therefore run away from him for some time. Gradually his strength dwindled and he could no longer work in the forest. His wife, 40 years old, had been ill for 14 days; after a frost she was seized with heat, pains in her body, chest and head, very weak and had to go to bed. The stool was stopped, she got almost nothing to eat. Moderate, frequent cough. When we saw her, she was still lying in bed, very emaciated, hollow-eyed, her body sunken almost to the spine, her skin cool, dry, dirty and covered with numerous, very fine, round, light blue-red spots (flea bites?), excoriated in many places from scratching and with numerous small venous ectasias. She still complained of headache, buzzing and hearing loss, coughed frequently, had pains in the chest, in which, however, neither percussion nor auscultation revealed anything serious; she also said that she still had pains in the abdomen, but it was soft and painless when pressed. The tongue was moist and quite clean; the stool had persisted for 8 days. The pulse made 80 weak and dull beats per minute. - The man himself, who suffered from inguinal hernia and chronic foot ulcers, a tall, strong figure, who was said to have been a hard worker, was also thin, coughed less, walked around, and complained mainly of "ringing bells" in his head, which was hot and reddened. He did not have a fever.

His sister-in-law, his wife's sister, Marianne Burger, 42 years old, mother of 3 children (1 had died), was also in the same flat. She was also still walking around, but also looked very weak and emaciated, complained of great weakness, constant roaring in her head and pains in her stomach and chest. She had suffered from stomach cramps before, but not from chest pains. Her head was hot and reddened, especially the conjunctiva bulbi near the cornea finely injected; she had frequent, dry coughing without deep pulmonary affection, slight fever and a moist, almost clean, very slightly whitish tongue. [51]

In another neighbouring hut, almost the most miserable we saw on our journey, lived Marianne Roth, 42 years old, mother of 8 children, 6 of whom are still alive. One daughter, Theocadia, 14 years old, whom we saw, was healthy, quite well-fed and only covered with countless flea bites around the epigastric area. A small boy of 5 years, Martin, on the other hand, presented a picture of the highest atrophy: dwarfish growth with a large, angular head and distended potbelly with enormous liver hypertrophy, very lean body, chalky pale, but covered with flea bites; the tongue free. - The mother lay in a dirty, highly disgusting bed, the original colour of which was no longer recognisable and in which even the straw had already taken on a completely blackish appearance.

(The children lay on some straw on the floor, covering themselves with an old jacket. There was no furniture in the room). When you picked up the duvet, the fleas jumped around so densely that for the first moment you only had the perception of flickering in front of your eyes. The woman stated that she had fallen ill 8 days ago under frost with repeated shivering. She also complained of extreme weakness, "ringing of bells", headache, black, green and sparkling vision, abdominal and chest pains; she coughed frequently, threw up some whitish-mucous mass, only the percussion sound was good and only at the back one heard some rattling respiratory noise. The abdomen was soft, no splenic tumour perceptible, the stool stopped. The tongue was moist and clean, the skin dry and brittle, the pulse dull but slow and without fever.¹⁴ [52]

In a third, but on the shady side of the valley, higher up, friendlier and cleaner house, in the Tann family, 3 of 5 children were ill. One of them was at school because absenteeism was not tolerated. A little boy of 3 years, Peter, has been ill for 8 days with frost, heat and profuse sweating, coughs a lot and profusely, has a lot of heat in his head, no appetite, some fever, normal stool; an older sister, Gertrud, 15 years old, also ill for 8 days, feverish, has a headache, a pulse of 120 small beats, no appetite, moist, whitish tongue, thin bowel movements twice a day. Food had been scarce for some time, but nevertheless in these cases the actual hunger symptoms receded and the feverish catarrh of the respiratory and intestinal mucous membranes appeared somewhat purer. In general, we saw much less of the effects of need in children, and even if the manifestations of illness were somewhat modified by it, they still did not reach the level they did in adults. By the way, we saw similar cases of children in Rothenbuch, Königshofen, etc.

We saw the manifestations of intestinal catarrh in connection with states of hunger under the picture of gastrosis, gastric and gastric-biliary fevers, catarrhal diarrhoea etc. in various places, especially in Waldaschaff in a couple of women aged 38 and 59 in the large ruins of the old Fugger house used as a community poorhouse. Apart from complaints about the head and chest, it was especially abdominal pains that they complained of: when pressure was exerted on the epigastric region, these increased, and we found swelling of the liver, a furry tongue with a very thick whitish and yellowish-white coating, loss of appetite, stagnant stools and a moderate fever. In Gross-Kahl we found a 61-year-old widow, Marg. Schaudi, who had been suffering from rheumatic complaints,

¹⁴ Mr. Kamm had the kindness to also report to me on the progress of the conditions of these patients: Fleckenstein's wife recovered very soon and is currently well. She received the necessary nourishment with her family and, after 01. Ricini had achieved Sedes, light aromatic, somewhat tonic medicines from me. Her weakness soon disappeared, together with the slight respiratory complaints, and her husband also regained the necessary strength after the use of Amaris, which was indicated after previously applying sal ammoniac solution. Both of them, together with their children, receive daily nourishment from the Soup Institute, which is in excellent condition. What was interesting about Joh. F. Stocker was a local exanthema that broke out about 8 days later on the pectoralis majoris muscle region, to which I was tempted to give the name petechiae. It was lenticular, standing in groups, red, more bright red than dirty red, and ran over the right pectoralis towards the clavicular region and up the neck. Judging by the shape, the rash formed more of a vesicle than a macula, which soon disappeared. The patient did not lie in bed and was free from fever. Nevertheless, the patient was very debilitated and depressed. The use of China with Elix. acid. Hall. soon brought recovery and about 6 days ago I met the man returning from the forest, loaded with wood. His wife is said to be pregnant, as the wicked Weibersbrunner women say. - Anton Roth's widow declared herself to be recovering 5-6 days after your visit, and was, and only needed sufficient nourishment, which she had also received; I soon saw her out of bed and active again in her house. Her stunted little son was also lying in bed as a result of debilitation; but now that soups from the soup institution are being served daily, they are doing better. -- - The illness of Joseph Burger's wife progressed regularly; she stayed out of bed for a few days, lay down for about 4 days and got up after the illness had lasted 10-12 days.

hip pain, ear pain, etc. for some time, was extremely marastically, and now complained of buzzing and hearing loss, pains in the body and thin diarrhoea 3 - 4 times a day [53]. Her tongue was heavily coated, her head hot, the conjunctiva finely injected, the fever low. -

This is a brief overview of the main forms of disease we have encountered. I understand that many will find its presentation incomplete and its interpretation inadequately motivated. I would ask them to bear in mind that our task was to gain a clear picture of the overall situation in the Spessart and the Kahlgrunde in as short a time as possible, and that even physical fatigue sometimes did not allow us to put down on paper everything that had been obtained through the examination or the examination. Since I know, however, how memory deceives and theoretical perception modifies factual perception, I have considered it expedient to repeat my notes without any significant additions and to give only the general summary of the account as it is based in my memory.

The question which was put to us before all, namely, whether a direct series of disease states had developed out of hunger, we could without hesitation confine to the relatively small category of cases which I have last discussed. In fact, we saw a certain state of exhaustion, of weakness, of lack of resistance develop, which carried within itself the predisposition to disease, a state which I formerly called the hunger state (*status famelicus*), and in which people fell ill in a relatively violent manner even in the case of slight disturbances. In this state, which everywhere bore the character of the chronic, we found the people weak, unable to work, emaciated, hollow-eyed ; They had stagnant stools, pains in the body, a dry, dirty, mostly cool skin, a dull, often feverless pulse, a mostly clean and moist tongue, but almost all of them agreed in complaining of headaches and drowsiness, of buzzing and ringing bells, sometimes of facial disturbances, and that they showed a hot head, an injected face, especially a bright injection of the conjunctiva bulbi. Some of these manifestations, especially where they assumed a febrile character through complication of some more serious local affection, reminded us of milder forms of typhoid fever, and the question could arise whether this should not be called the beginning of famine typhoid. The success seems to have justified us in speaking out against it: the establishment of soup-kitchens, the distribution of bread, rice, etc., has sufficed almost everywhere to eliminate these conditions immediately. [54]

A peculiar difficulty confronted us at the beginning, for which I was little prepared. First, in Weibersbrunn, we found numerous spots on the skin of the most starved people, which looked like so-called petechiae. However, the suspicion soon arose that they were flea bites, and Mr Schmidt in particular maintained this opinion at a time when I was by no means inclined to agree with him. It was not a question of the usual flea bites, as we have all recently become acquainted with them, of these relatively large, slightly bluish red, flat spots that become paler towards the edges and largely disappear under finger pressure, but of very small, sharply defined, completely round, dark red spots that do not change significantly under finger pressure. In other words, these were not fresh spots, in which the greater part consists of a skin hyperaemia, but old spots that were one day old or more, in which the hyperaemic circle had disappeared and only the small central extravasation caused by the sting itself had remained. Our own experience in our own bodies finally decided the difficulty, and no doubt could remain in our minds that it was mainly these flea-bite extravasations that we had before us. The fact that they were spread over the body in such colossal numbers, in hundreds and thousands, was of course not surprising, since, as I have already mentioned in one case, the beds of these patients were sometimes filled with a formal flickering of the jumping fleas, which sometimes deterred us from a closer examination in cases where it was not absolutely necessary. For example, I remember a woman in Waldaschaff who was suffering

from a chronic pulmonary infection and in whose case we were unable to overcome the disgust and fear of being swamped by the myriads of fleas that jumped out when her thorax was exposed. But what was striking, and at first particularly doubtful, was the fact that these spots were not evenly distributed over the body. Thus, for example, in some individuals we saw these spots in enormous numbers only on the chest, in the epigastric region or in the lumbar region, in others on the chest, abdomen and lower extremities, in others on the abdomen, neck and arms, and not mixed with fresh spots, but often quite pure and uniform. Only later did it become apparent that these spots were usually best explained by the presence of fleas, that they were usually the most protected, covered and warmed places where these animals withdrew. Thus, in women, they clustered in the epigastric region, just below the part where skirts, jackets and aprons are usually fastened around the waist, while in men they often went down into the trousers. After this misconception had been cleared up, the question arose as to whether petechiae did not also occur. Here, however, the difficulty arose as to how the so-called petechiae of today could be distinguished from these flea-bite extravasations? No one was sufficiently prepared for this distinction, and even the local physicians shared my error in the beginning by taking the flea-bite extravasations partly for petechiae.¹⁵ Even at present I must confess that I see only one diagnostic possibility, namely that in spontaneous petechial extravasations the blood is usually found around the hair follicles or in irregular heaps in deeper layers of the corium, whereas in pedicular extravasations it is found at random, probably mostly not at the hair follicles, and always on the surface of the corium in a fairly constant measure.¹⁶ But often this distinction will certainly be very difficult and it is a question whether one has not often enough committed confusion. In any case, I confess that the words of Fracastorius: *vulgus lenticulas aut puncticula appellat, quod maculas proferunt lenticulis aut puncturis pulicum similes; quidam mutatis literis peticulas dicunt* [The common people call it lenticuli or punctilica, because they produce spots resembling lenticules or punctures of fleas; some say that the letters have been altered], have never so much come to mind and the derivation of the word petechiae from pediculi, doubted by more recent historians, has never been so convincingly demonstrated. Whether I have seen a spontaneous petechia anywhere in the Spessart, I dare not affirm. -

Under other circumstances, the state of hunger referred to, by establishing a predisposition to diseases of the most diverse kind, would perhaps have led to a great famine plague. The Spessart places, as I have shown, are capable of developing typhus epidemics even without hunger: how much more could such an epidemic have spread in a starved population. But on the one hand,

¹⁵ I have already quoted a passage from a letter by Mr. Kamm where he believes to have seen true petechiae in one of our patients later on. It may therefore be of interest to mention that the same observer, in one of his reports to the Imperial Government, cites the story of a 12-year-old boy from Weibersbrunn in whom he found a maculosus disease (Gilbert Roth). The boy was quite lively and went to school when he was attacked by frequent bleeding from the mouth and gums. The blood was dark. The whole body from head to feet was covered with dark brown-red spots the size of peas to lentils, while on the thighs blackish-bluish, larger and irregular spots appeared here and there, which played slightly into a greenish colour. China with acids was used with success.

¹⁶ Fuchs (*Die krankh. Veränd. der Haut*, Vol. I, p. 357) states that *purpura minima* (petechiae) can be easily distinguished from fleabites by their uniform colouring and permanence under finger pressure, while in the centre of the fleabite there is a small constant sugillation, but in its periphery a rosy areola which disappears under finger pressure, and also by their remaining longer on the skin. Since we could not wait for the latter criterion, but the former did not apply to the Spessart spots, where only the sugillated centre could be seen, we could not decide anything according to these instructions.

hunger was fortunately controlled early enough to prevent the predisposition from progressing too far, and on the other hand, it was not “typhus weather”, no *constitutio typhosa*. Nor must we forget that our entire investigation has shown how the unfavourable conditions of social life in the Spessart Mountains are largely paralysed by the favourable conditions of the elevation of the land and the formation of the soil, and how this miserable and indolent population, which is brought into the misery of starvation by every single bad year, nevertheless presents a mortality ratio almost as favourable as that shown by the best countries of the old world. Our prediction that no epidemic was to be feared in the near future has happily come true, but will we forget the other prediction that every new similar year will demand similar sacrifices and may bring incomparably greater calamities? Education, prosperity, and liberty are the only guarantees of the lasting health of a people.