The line in square brackets indicates the volume and page where the original figure appeared and the section and page where the figure is discussed in the present work. D, Dyck (1880); F, Fricke (1926); F-K, Fricke and Klein (1897, 1912); K-F, Klein and Fricke (1890). Fricke, 1916 refers to: Fricke, R., "Die elliptischen Funktionen und ihre Anwendungen," Vol. 1. B. G. Teubner, Leipzig.

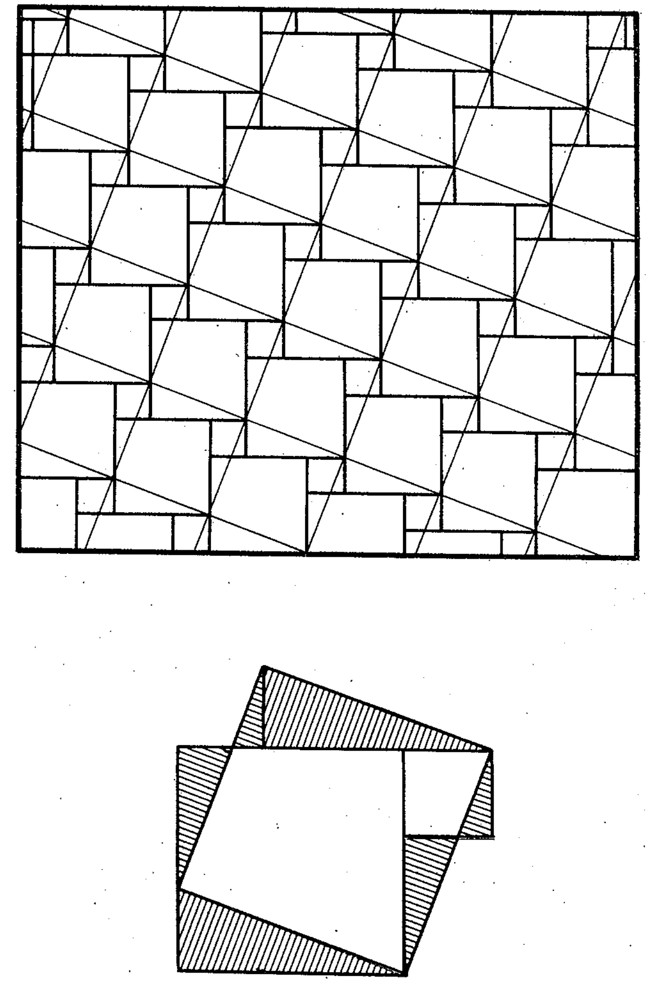

Figure 1 (a, b)

Tesselation with proof of the pythagorean theorem
[II.1, 53]

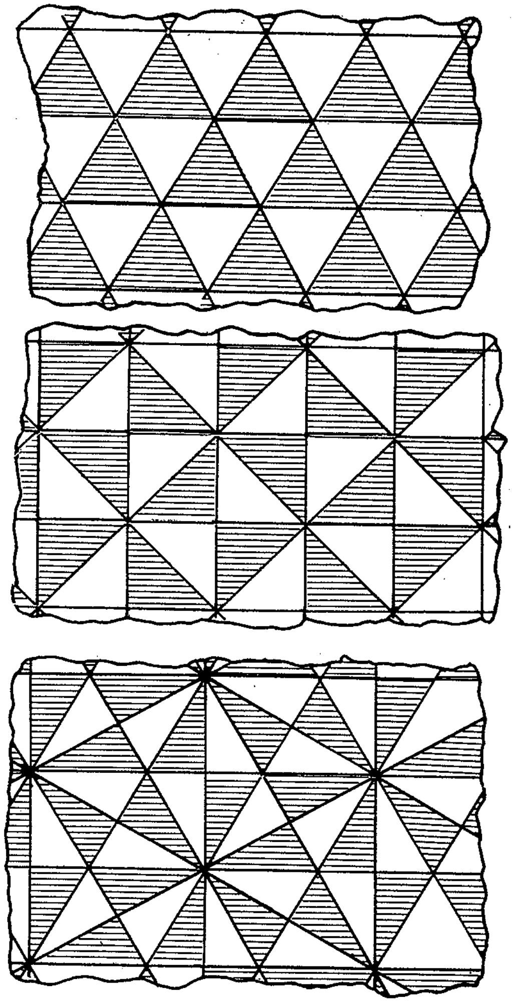

Figure 2 (a, b, c)

Triangle tesselations of the euclidean plane
[K-F, 107 II.4, 69, 70]

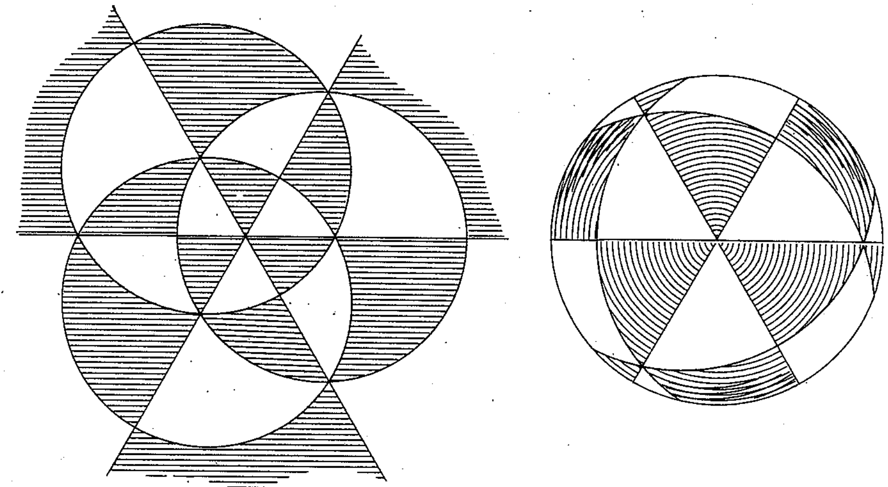

Figure 3 (a, b)

Tesselation of the tetrahedral group on plane and sphere
[K-F, 104 II.4, 74]

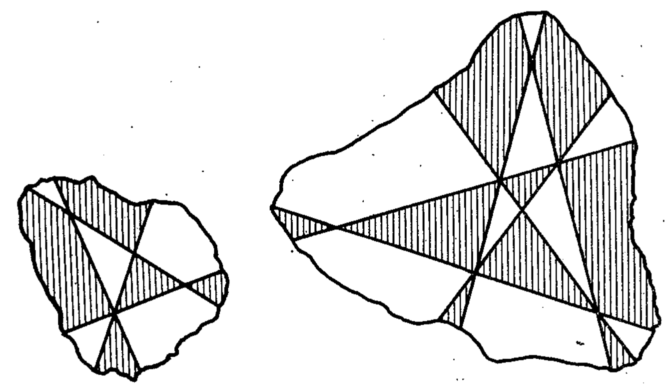

Figure 3 (c)

Tesselation of the tetrahedral group and a dihedral group in the elliptic plane
[F-K, 70 II.4, 74]

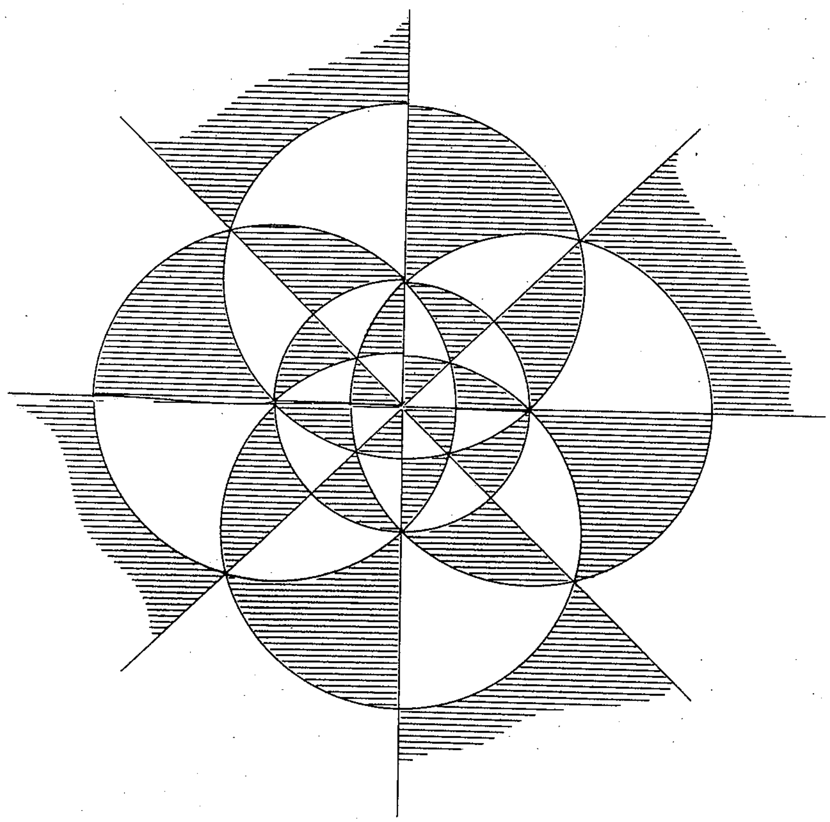

Figure 4 (a)

Tesselation of the octahedral group on plane
[K-F, 75 II.4, 76]

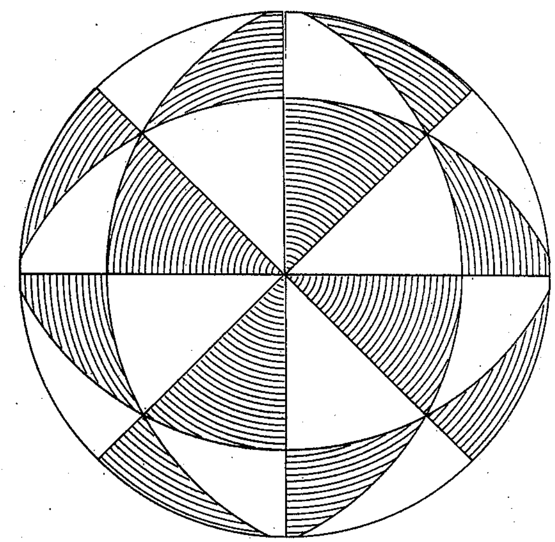

Figure 4 (b)

Tesselation of the octahedral group on sphere
[K-F, 76 II.4, 76]

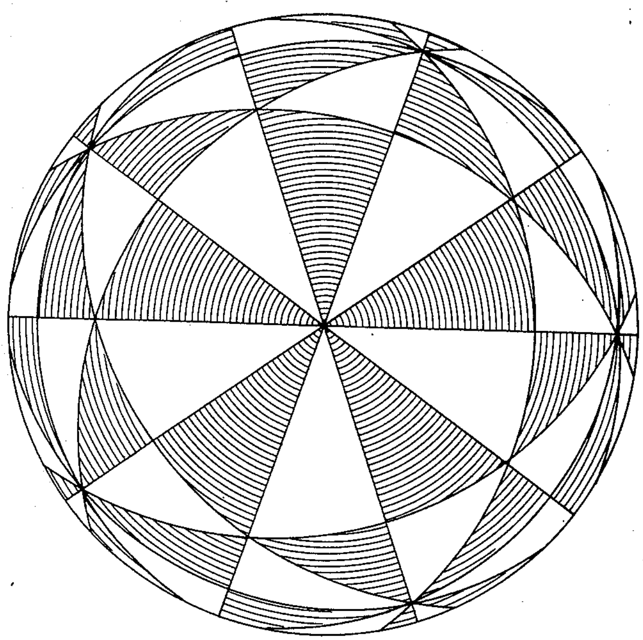

Figure 5 (a)

Tesselation of the group of the icosahedron on sphere
[F, 46   II.4, 76]

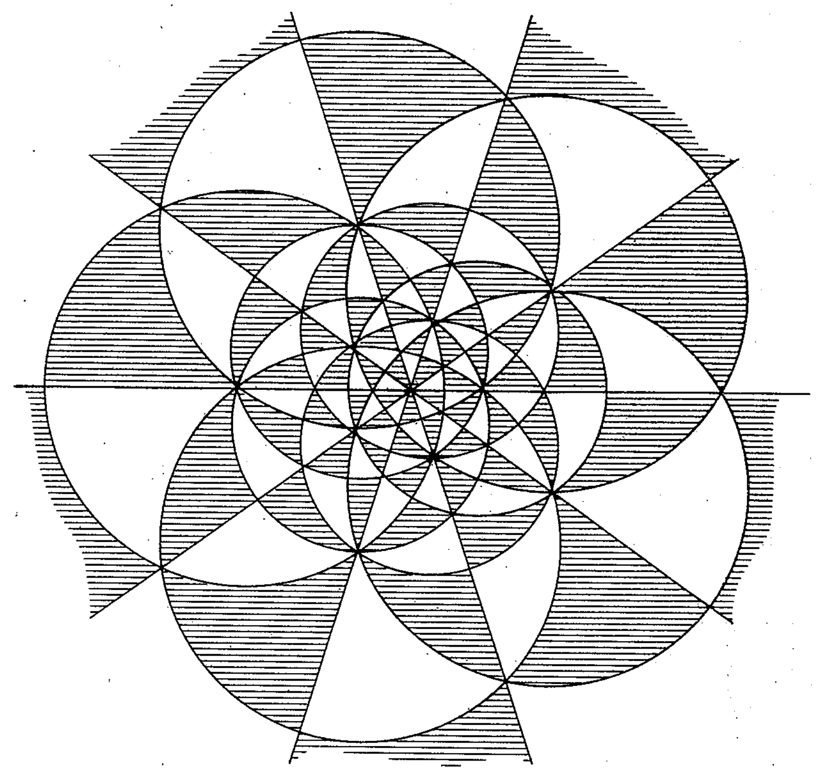

Figure 5 (b)

Tesselation of the group of the icosahedron on plane
[F, 46   II.4, 76]

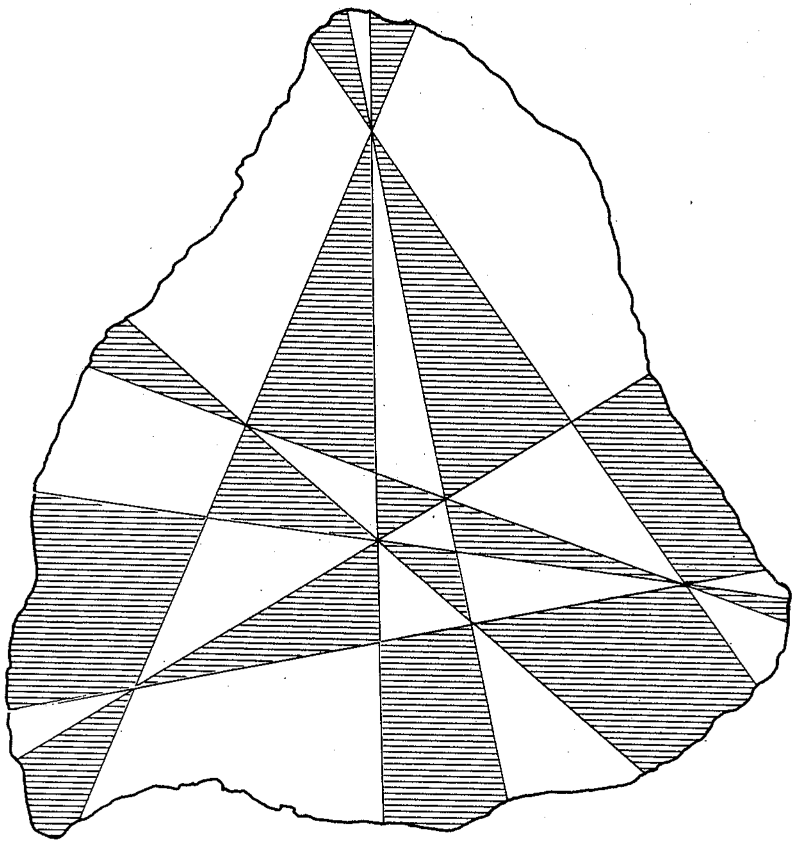

Figure 6

Octahedral tesselation in the elliptic plane
[F-K, 71   II.4, 74]

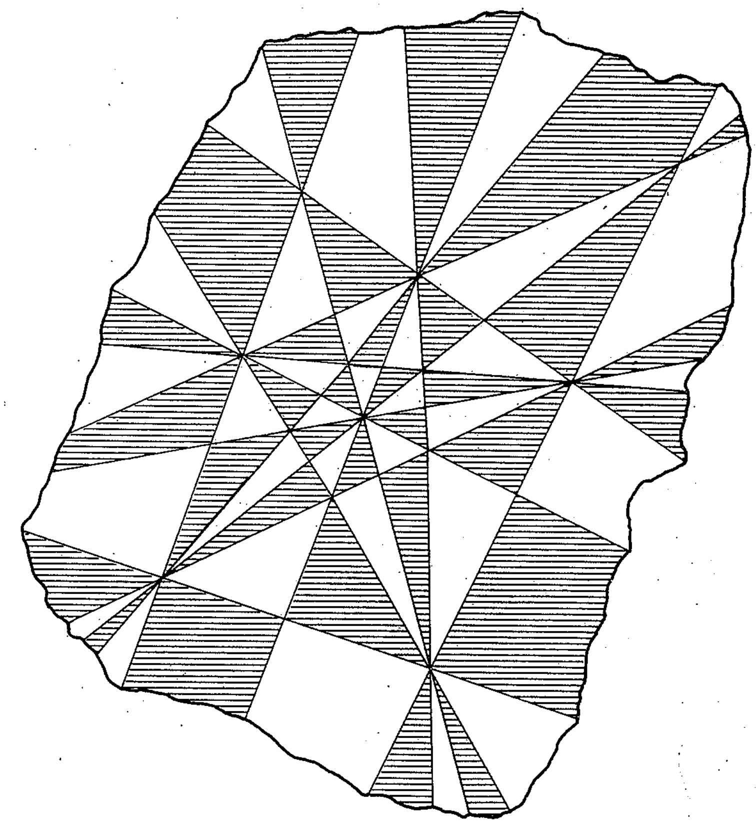

Figure 7

Icosahedral tesselation in the elliptic plane
[F-K, 72   II.4, 76]

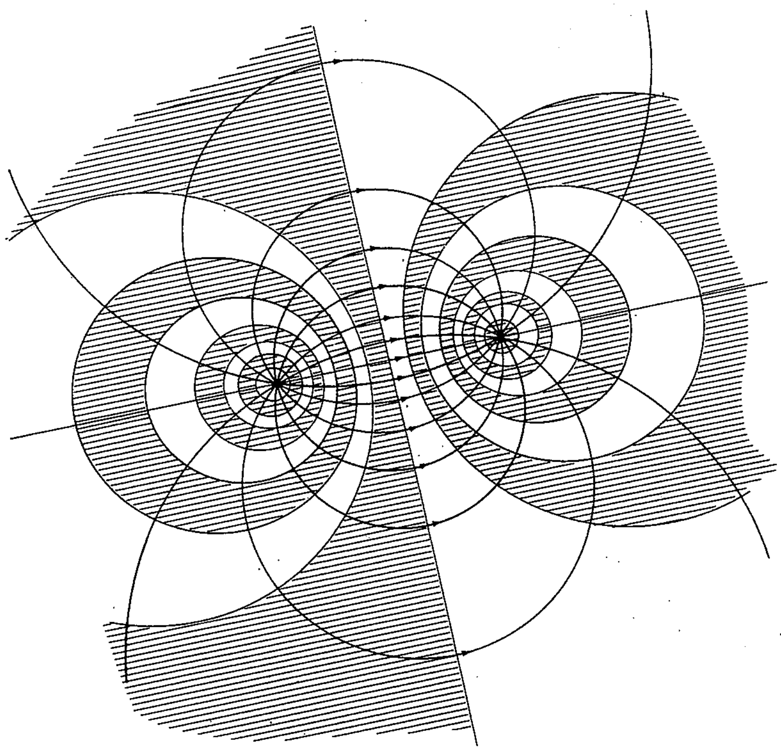

Figure 8 (a)

Orbits of hyperbolic substitution
[K-F, 206 I.2, 10]

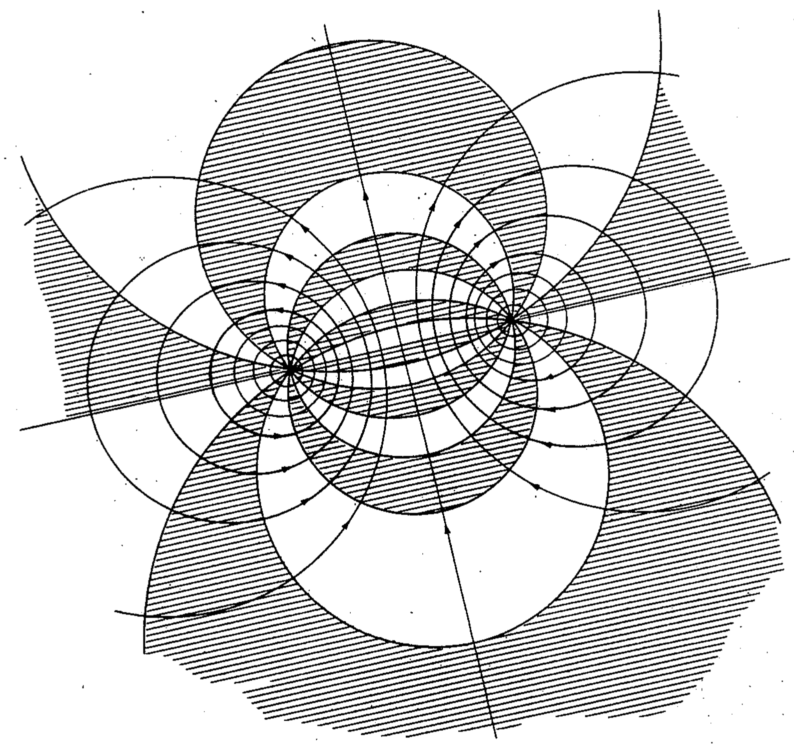

Figure 8 (b)

Orbits of elliptic substitution
[K-F, 206 I.2, 10]

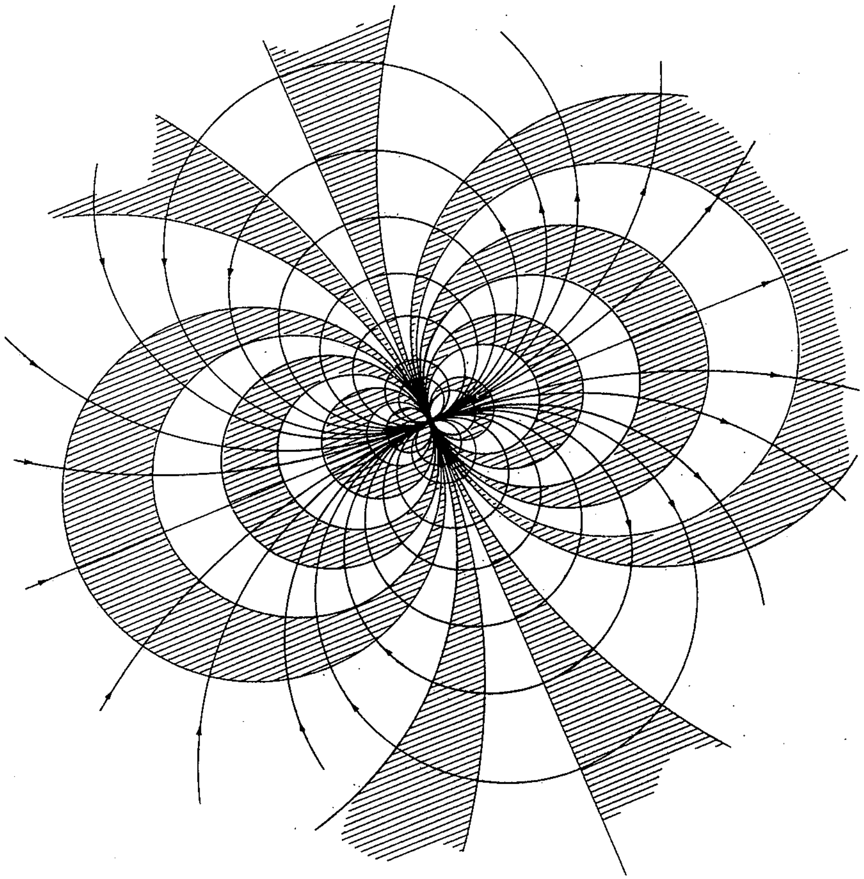

Figure 9

Orbits and their orthogonal trajectories of a parabolic substitution
[K-F, 207 I.2, 10]

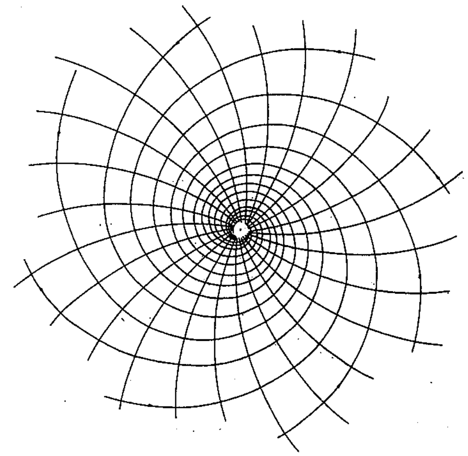

Figure 10

Orbits and their orthogonal trajectories of loxodromic substitutions with fixed point at infinity
[K-F, 168 I.2, 10]

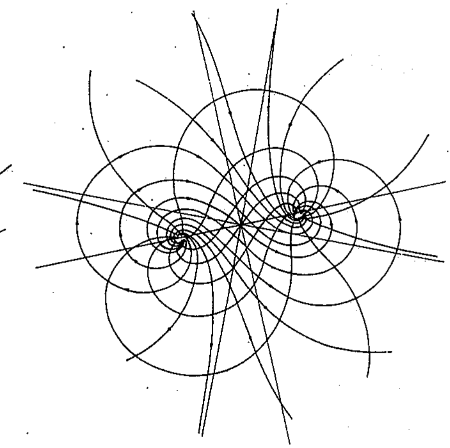

Figure 11

Orbits and their orthogonal trajectories of loxodromic substitutions with finite fixed points
[K-F, 172 I.2, 10]

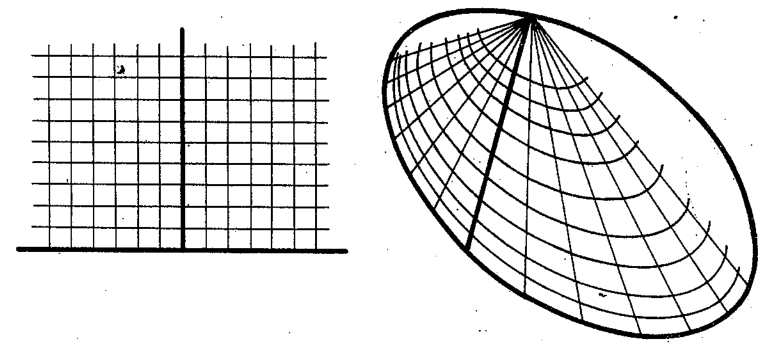

Figure 12

Mapping of halfplane into an ellipse
[F-K, 23 I.6, 42]

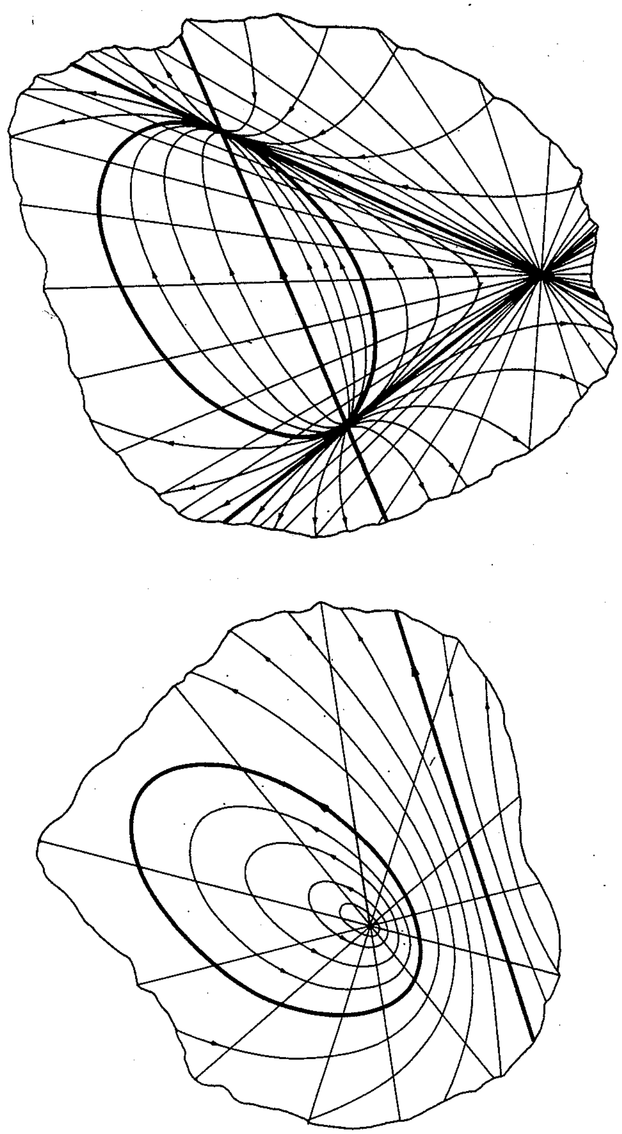

Figure 13 (a, b)

Orbits of hyperbolic and of elliptic substitutions in Klein's projective model
[F-K, 34 I.6, 42]

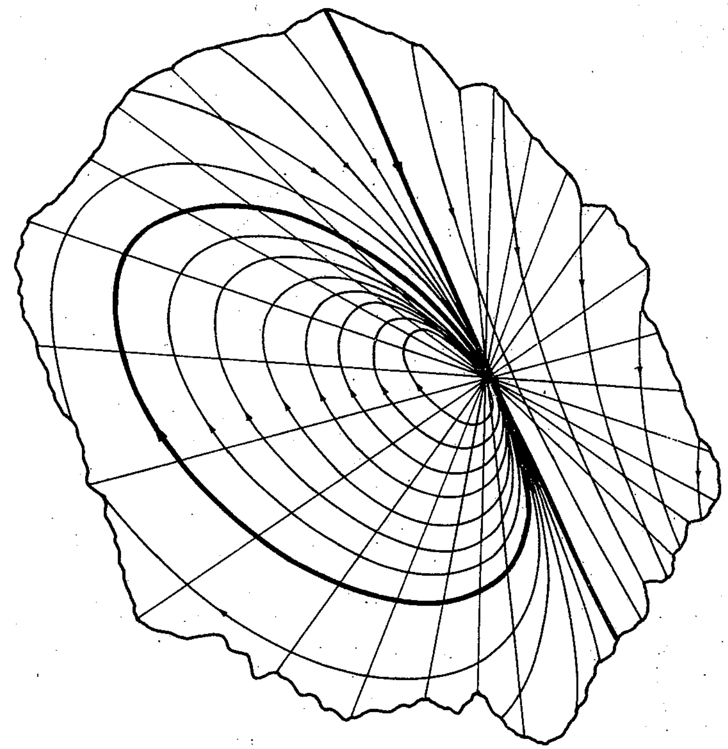

Figure 14

Orbits of parabolic substitutions in Klein's projective model
[F-K, 35 I.6, 42]

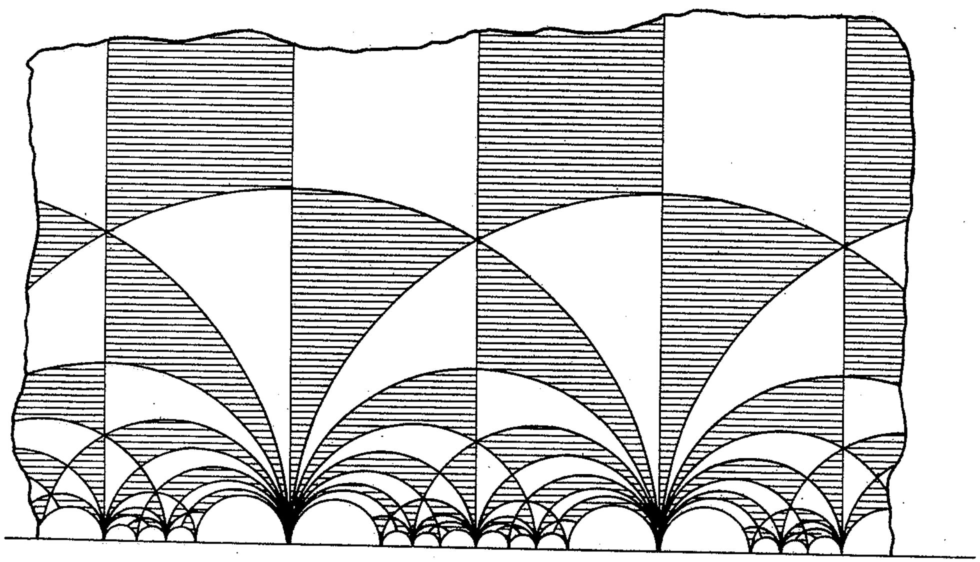

Figure 15

Tesselation of upper halfplane induced by the extended modular group
[F, 30 II.5, 90; III.1, 111]

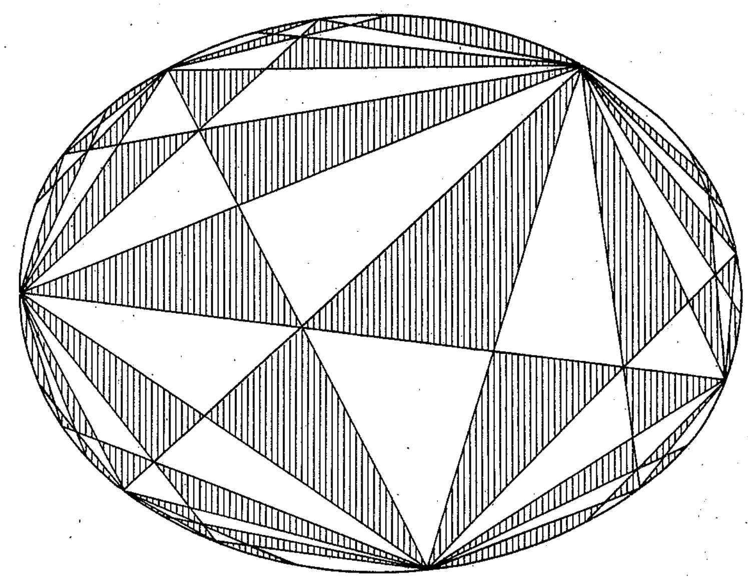

Figure 16

Tesselation of ellipse induced by extended modular group
[K-F, 239 II.5, 90]

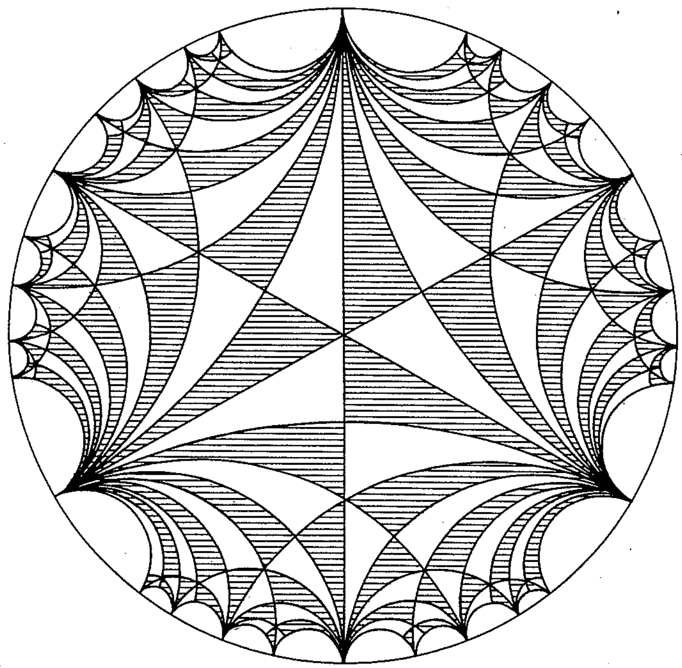

Figure 17

Tesselation of unit disk induced by extended modular group
[K-F, 112   III.1, 111, 112; IV.1, 140]

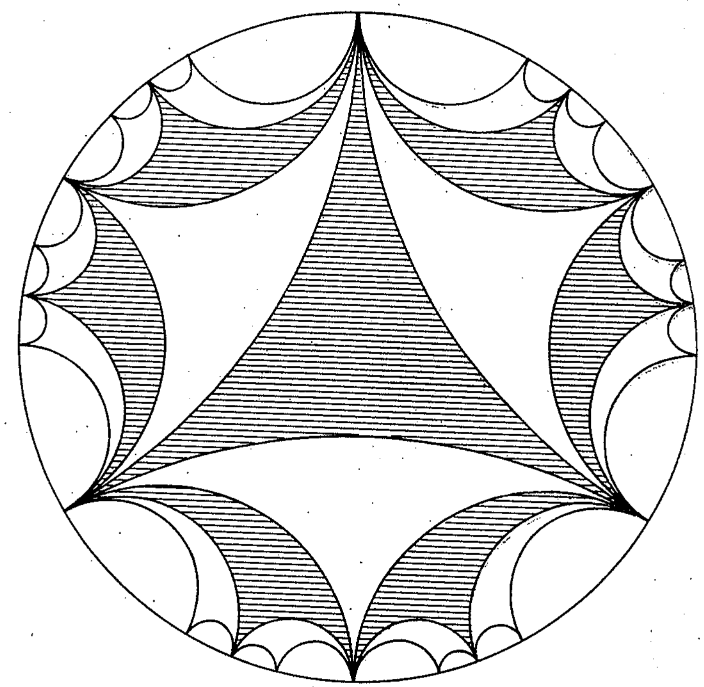

Figure 18

Tesselation of unit disk induced by repeated reflection of zero-angle triangle
[K-F, 111   III.2, 112]

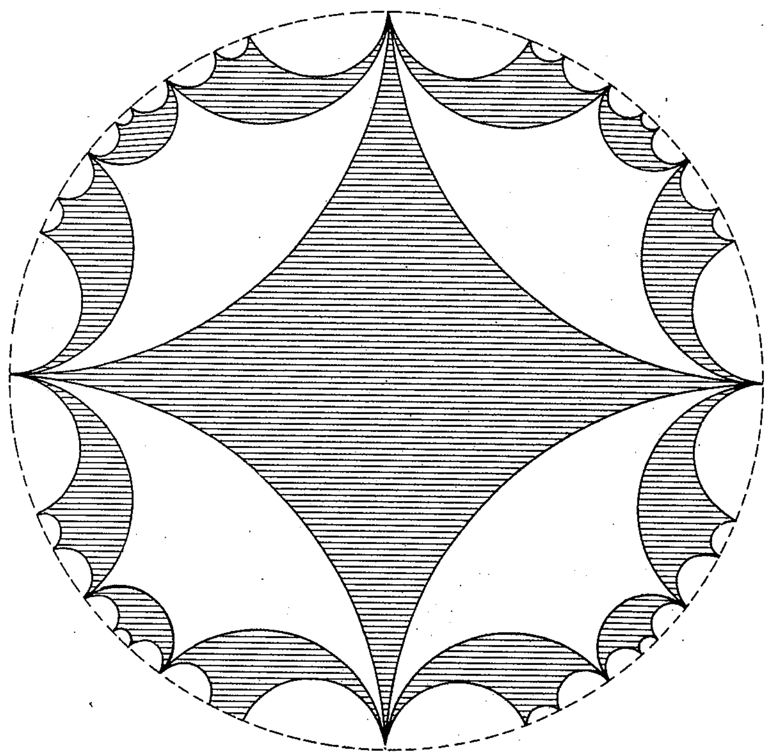

Figure 19 (a)

Tesselation of the unit disk induced by subgroup of the extended modular group
[D, 20 III.2, 114; IV.1, 140]

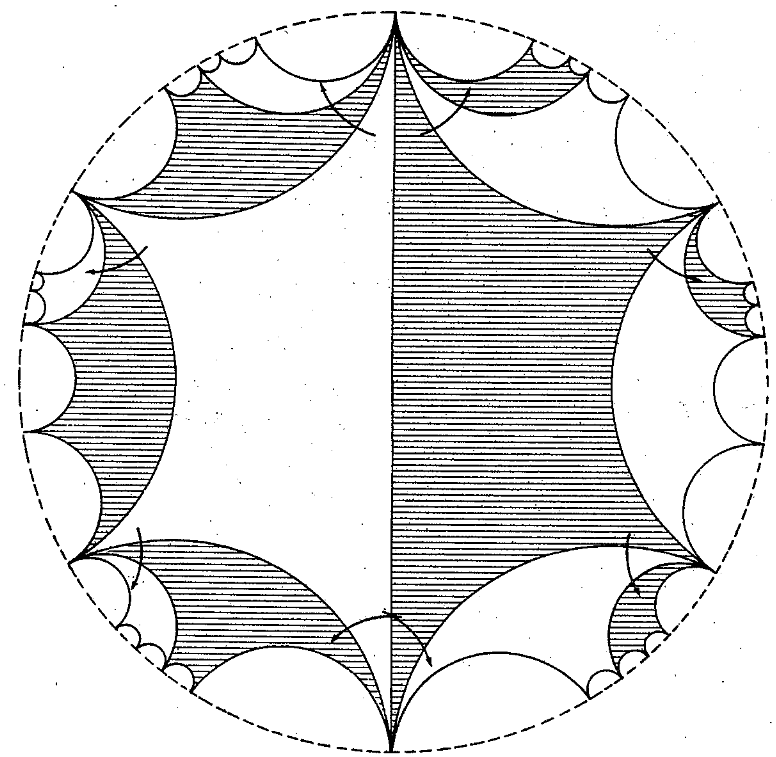

Figure 19 (b)

Tesselation of the unit disk induced by subgroup of the extended modular group
[D, 20 III.2, 114; IV.1, 140]

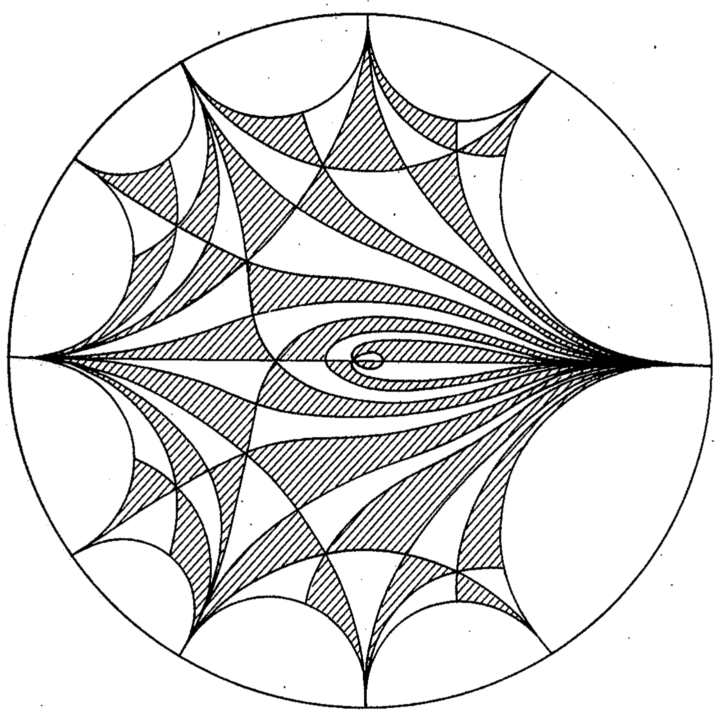

Figure 20

Image of part of the tesselation induced in the upper halfplane by the extended modular group under an exponential mapping
[Fricke (1916, 300)   II.5, 90]

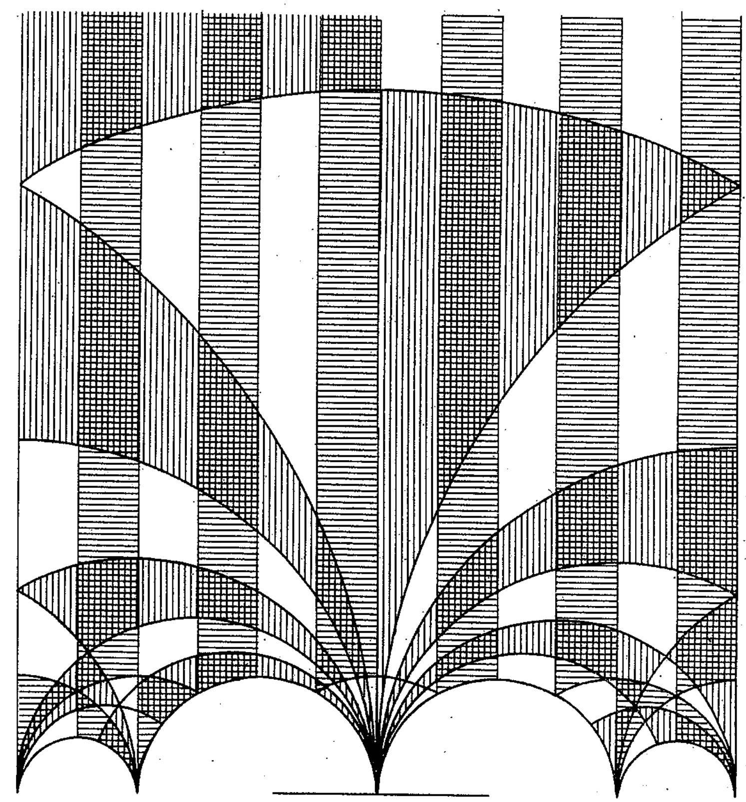

Figure 21

Superposition of two tesselations induced by the modular group
[F-K, 549   III.3, 126]

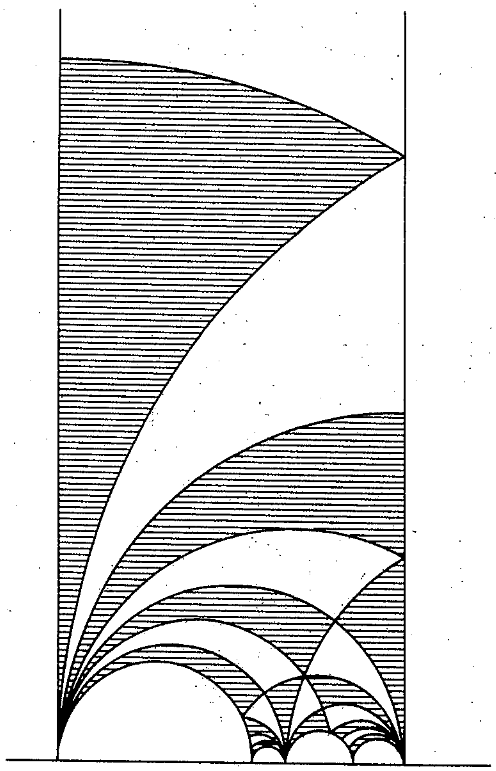

Figure 22

Part of tesselation induced by the extended modular group
[K-F, 373 III.2, 115]

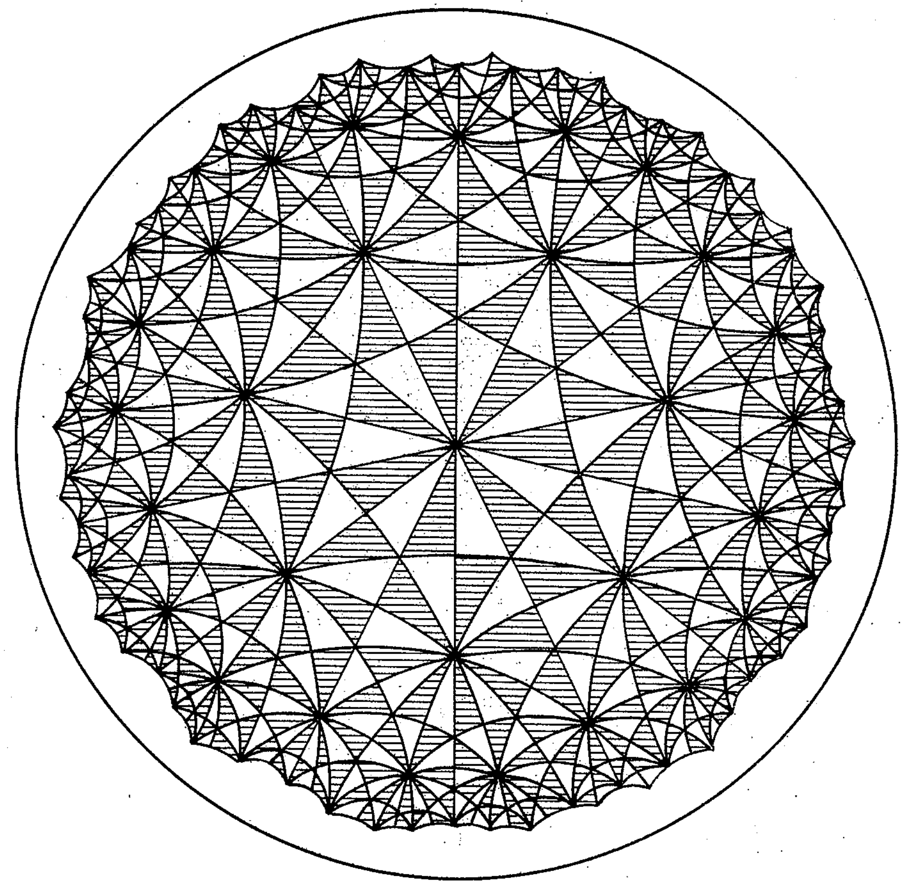

Figure 23

Tesselation of the unit disk belonging to the triangle group $T^*(2, 3, 7)$
[K-F, 109 II.5, 90]

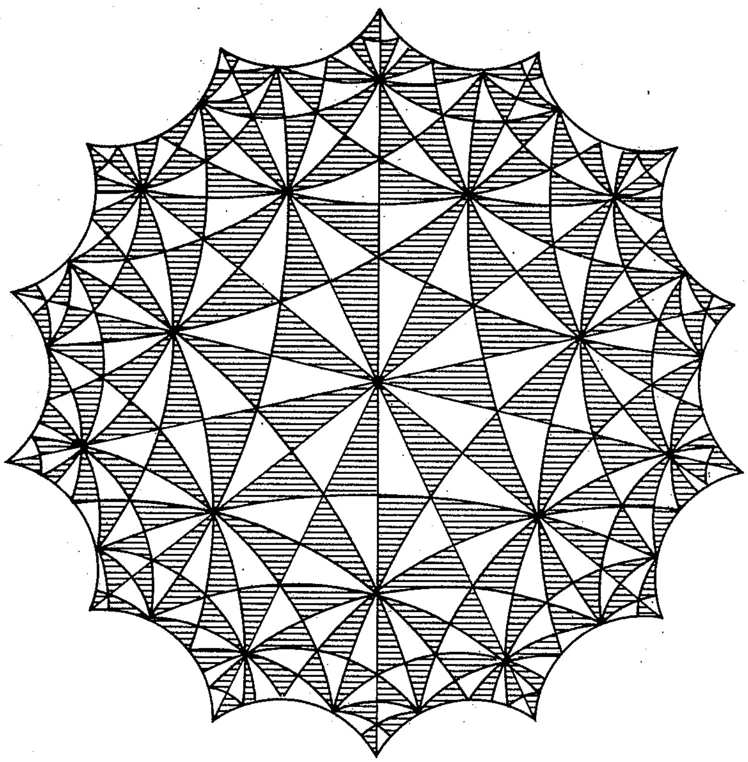

Figure 24

Fundamental region of a subgroup of index 168 in $T(2, 3, 7)$
[K-F, 370 II.6, 94]

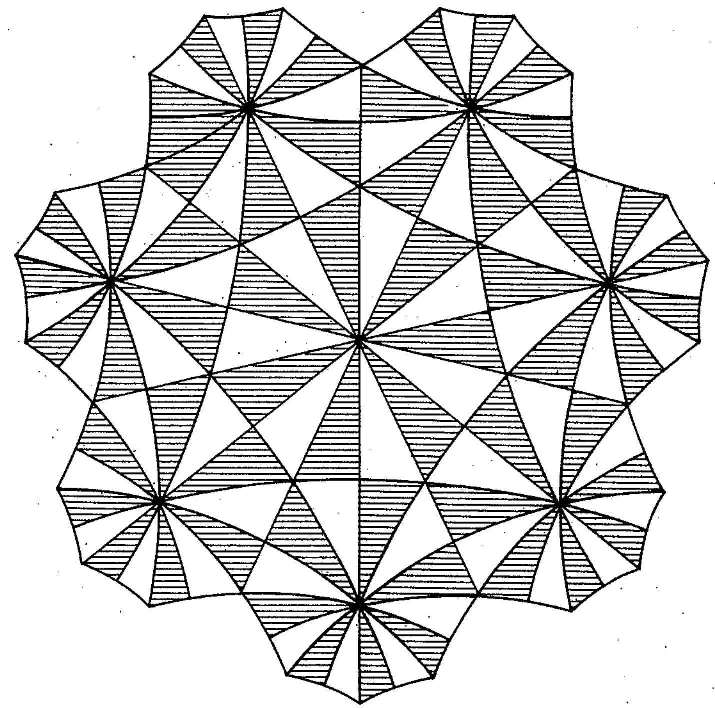

Figure 25

A heptagon and its seven neighbors in the tesselation of $T(2, 3, 7)$
[K-F, 464 II.6, 95]

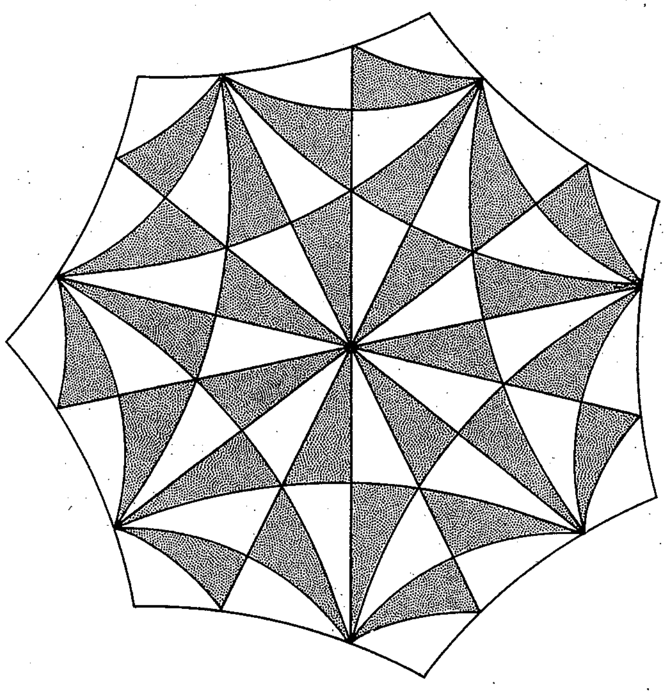

Figure 26

Unsymmetric tesselation of a regular heptagon by 63 triangles with angles $\pi/2$, $\pi/3$, $\pi/7$
[F-K, 621 II.6, 95]

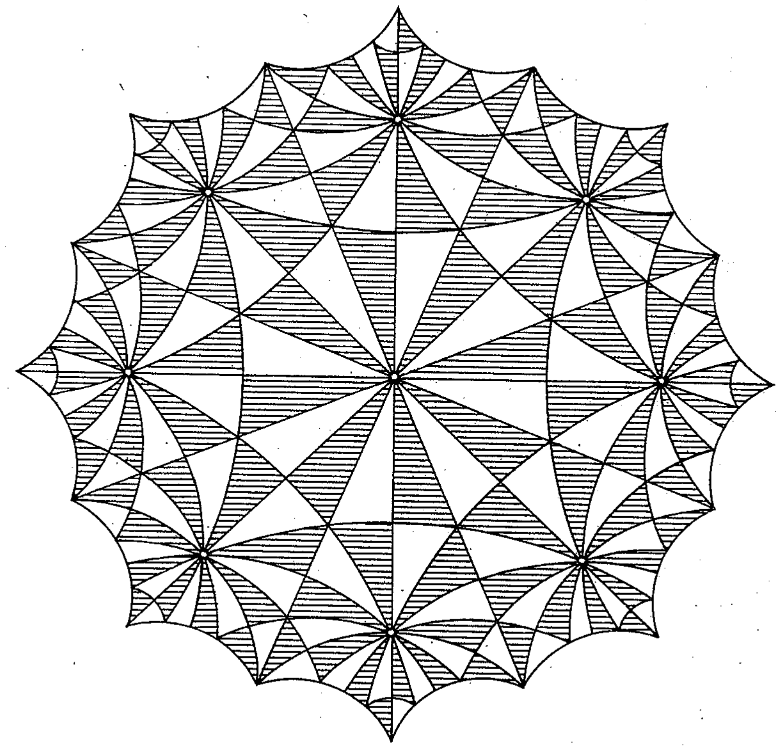

Figure 27

Tesselation by the triangle group $T^*(2, 3, 8)$
[D, 17 II.6, 94]

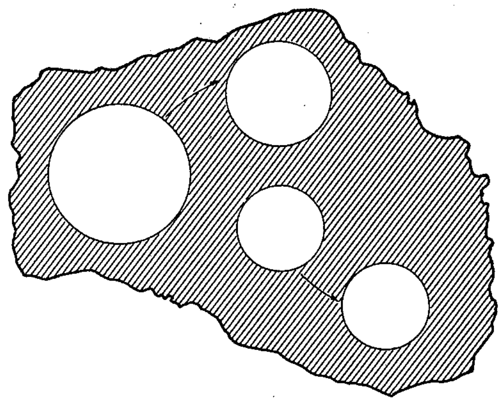

Figure 28

Composition of two cyclic groups of infinite order
[F-K, 191   IV.1, 135]

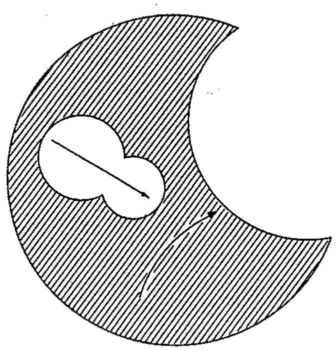

Figure 29

Composition of two cyclic groups of finite order
[F-K, 191   IV.1, 135]

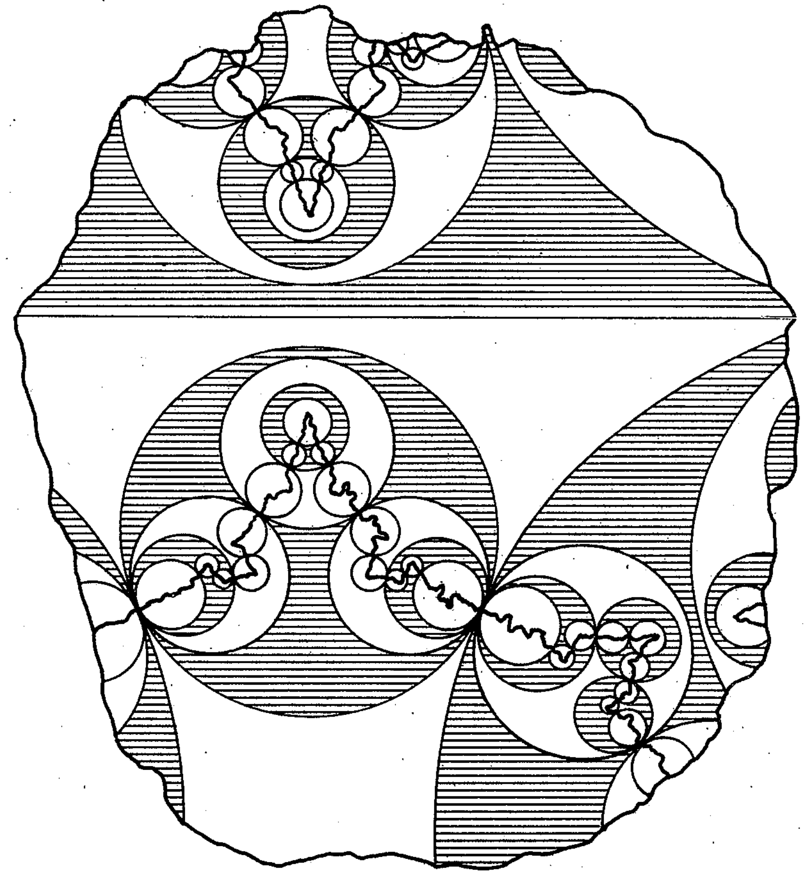

Figure 30

Tesselation and nondifferentiable curve of limit points for nonfuchsian group
[F-K, 418   IV.1, 146]

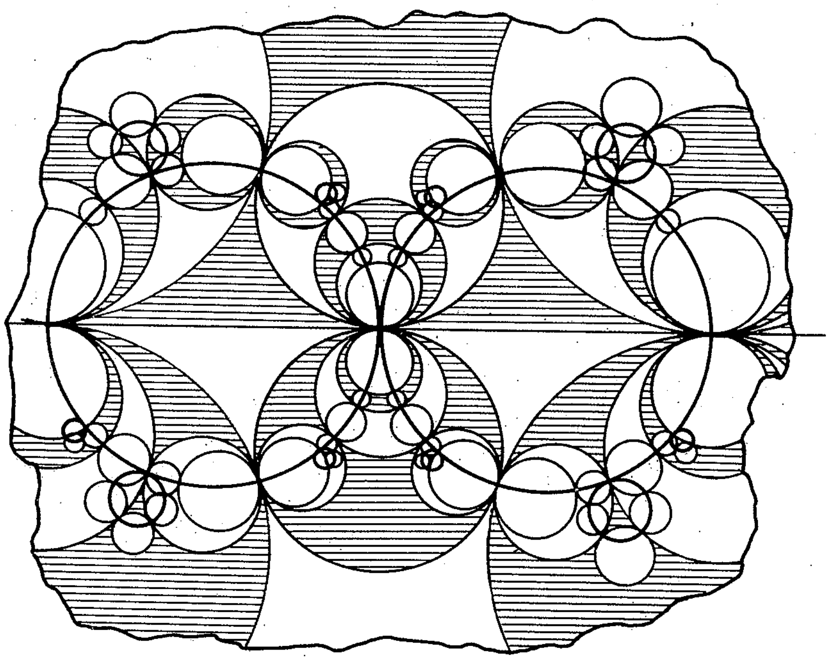

Figure 31

Tesselation of nonfuchsian group with infinitely many limit circles
[F-K, 429 IV.1, 147]

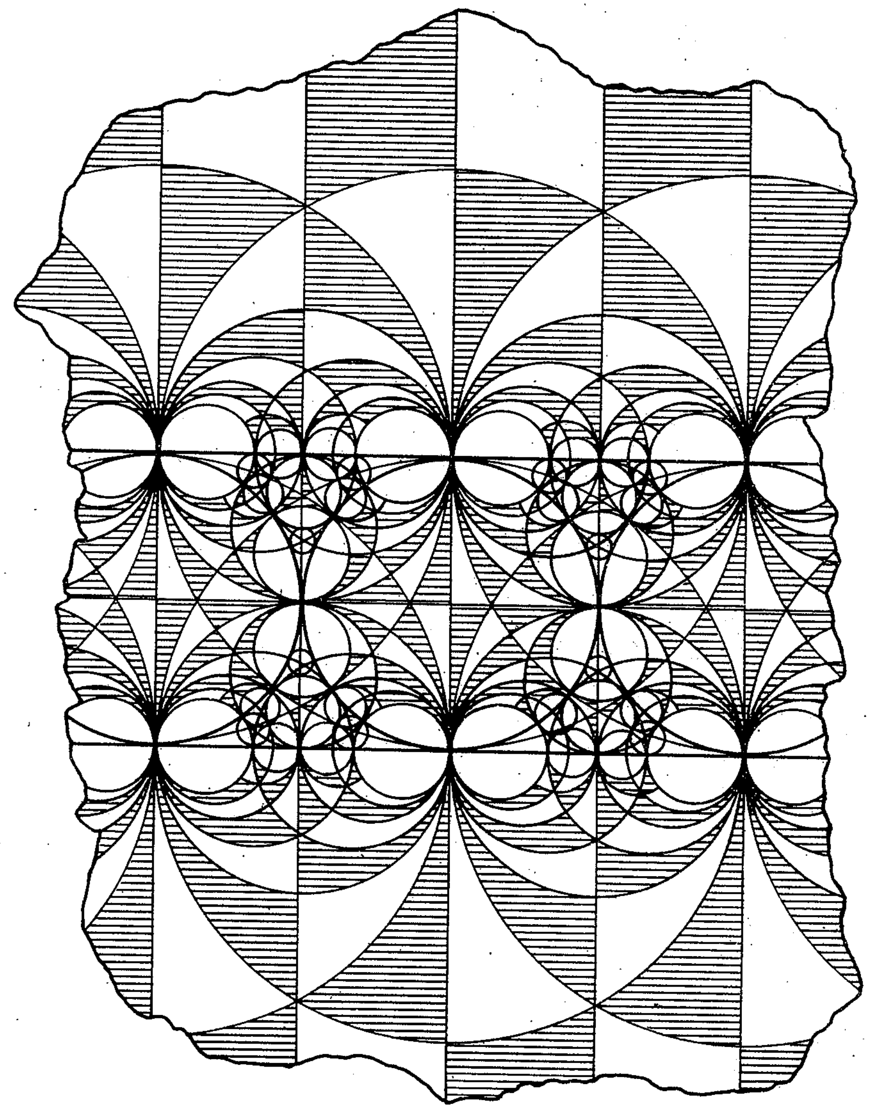

Figure 32

Degenerate form of tesselation in Figure 30
[F-K, 432 IV.1, 147]

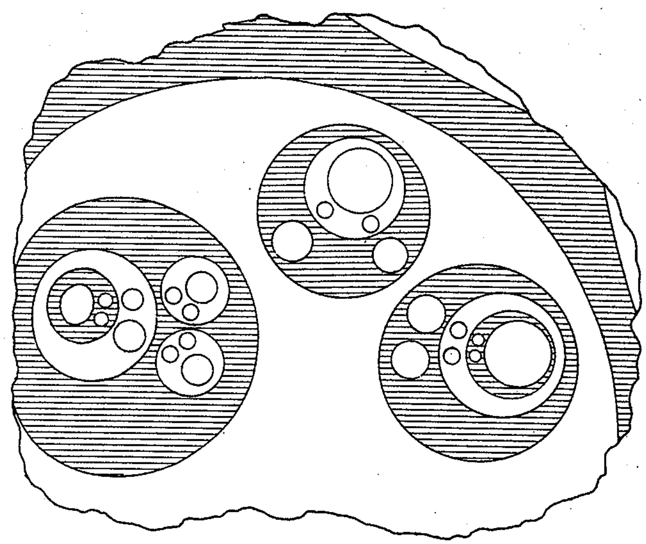

Figure 33

Tesselation arising from reflections in four disjoint circles
[F-K, 437 IV.1, 147]

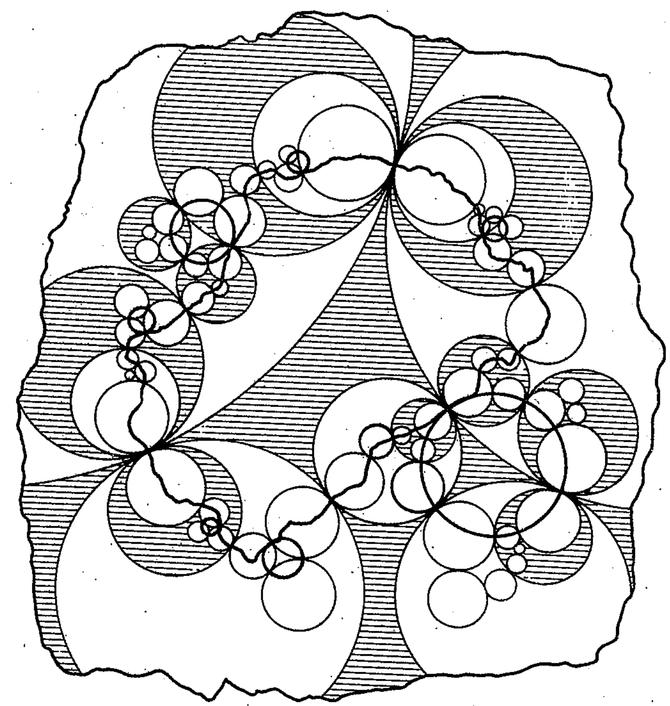

Figure 34

Tesselation with nondifferentiable curve of limit points and with limit circles
[F-K, 440 IV.1, 147]

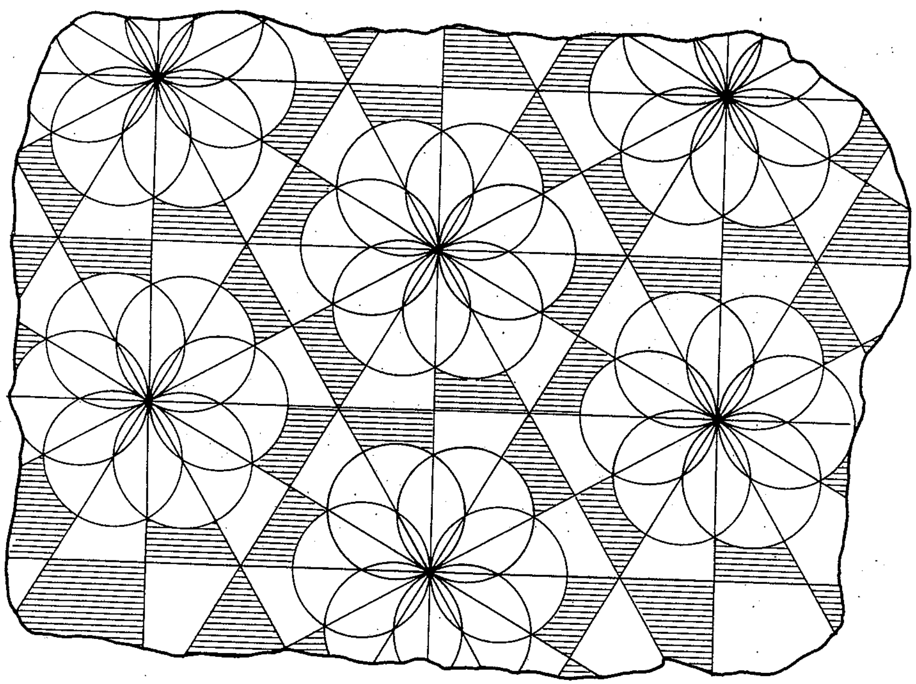

Figure 35

Tesselation arising from composition of two euclidean triangle groups
[F-K, 433 IV.1, 147]

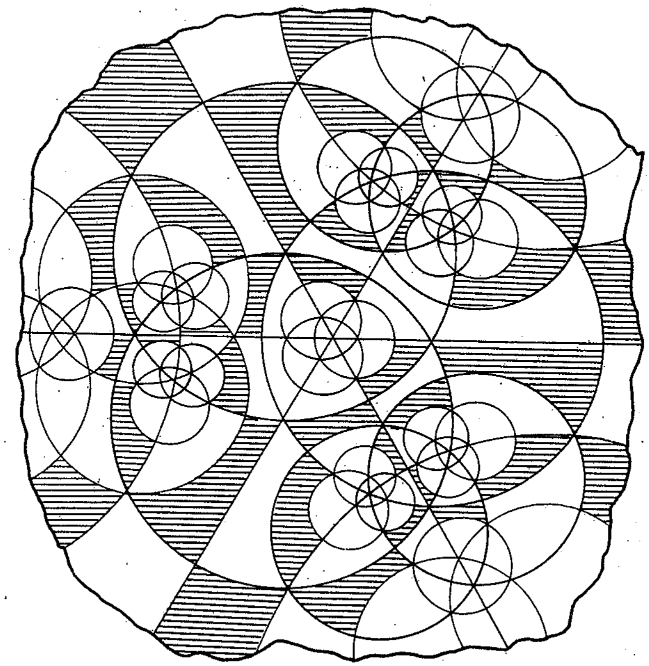

Figure 36

Tesselation arising from composition of two tetrahedral groups
[F-K, 435 IV.1, 147]

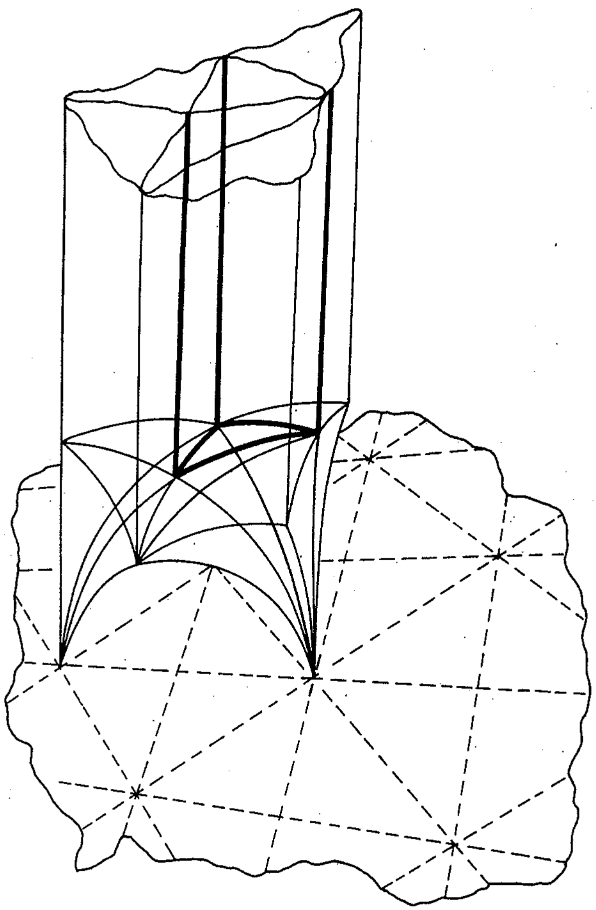

Figure 37

Fundamental region of Picard's group
[F-K, 82 V.1, 152]

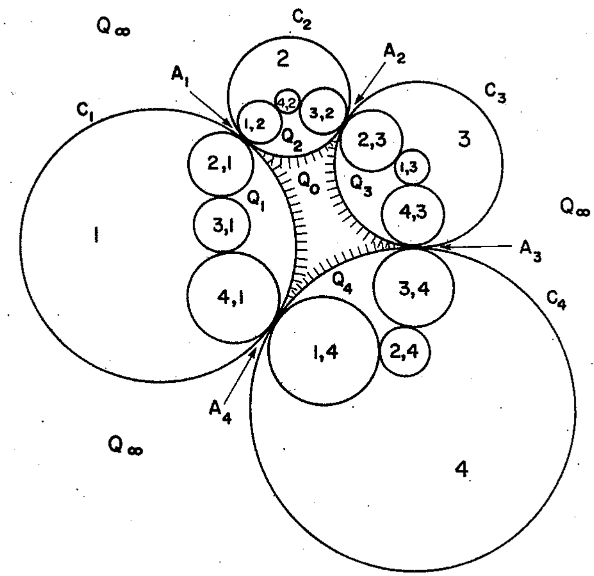

Figure 38

First step in the construction of the tesselation induced by a special nonfuchsian group
[IV.1, 137]

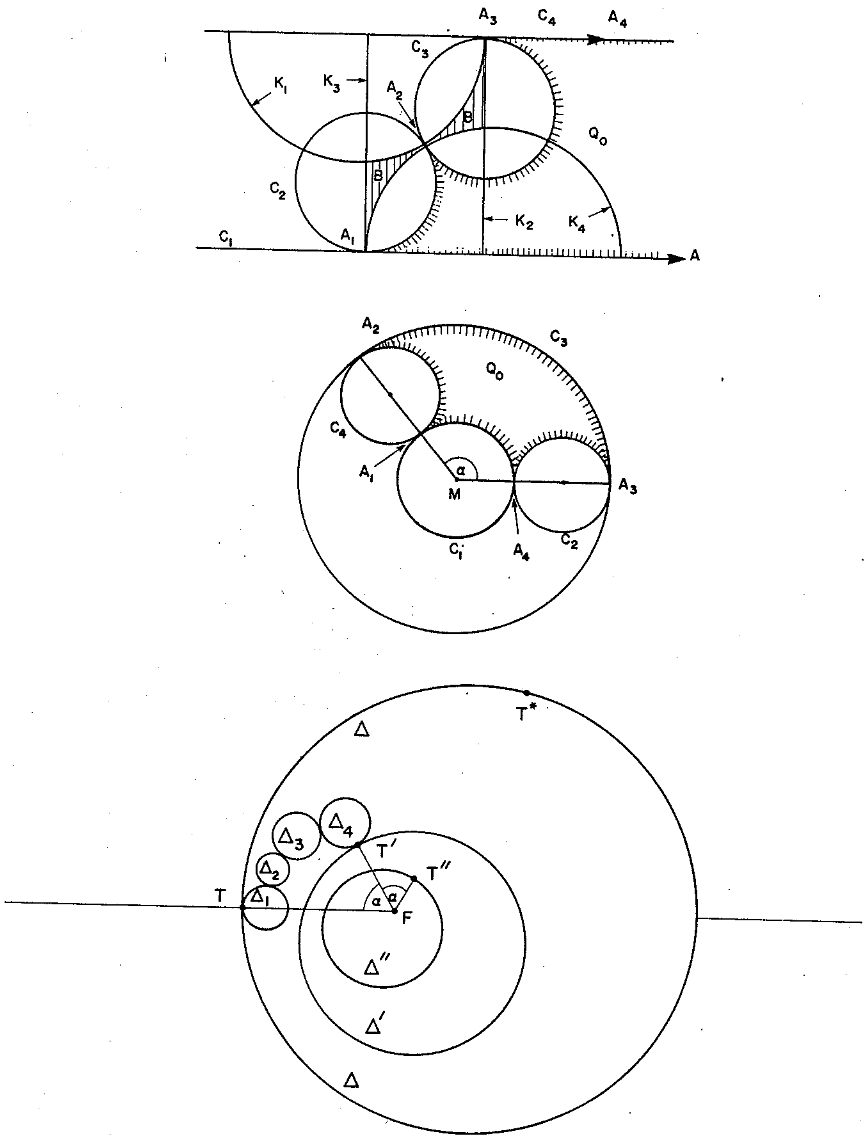

Figure 39

Behavior of nondifferentiable limit point curve near: **(a)** parabolic fixed point [IV.1, 143]; **(b)** hyperbolic fixed point [IV.1, 145]; **(c)** loxodromic fixed point [IV.1, 146].

References

Arrhenius-Wold, A. L. (1971). Sur les groupes finis engendrés par deux genérateurs A et B satisfaisant à la relation $BA = A^2B^2$. *Publ. Sém. Géom. Univ. Neuchâtel* **6,** 41–44.

Artin, E. (1925). Theorie der Zoepfe. *Abh. Math. Sem. Univ. Hamburg* **4,** 47–72.

Artin, E. (1957), "Geometric Algebra." Wiley, New York.

Bass, H., Milnor, J., and Serre, J. P. (1967). Solution of the congruence subgroup theorem for SL_n $(n \geq 3)$ and Sp_{2n} $(n \geq 2)$. *Inst. Hautes Études Sci. Publ. Math.* No. 33.

Behr, H., and Mennicke, J. (1968). A presentation of the group $PSL(2, p)$. *Canad. J. Math.* **20,** 1432–1438.

Benson, C. T., and Grove, L. C. (1971). "Finite Reflection Groups." Bogden and Quigley, Tarrytown on Hudson, New York.

Bergau, P., and Mennicke, J. (1960). Ueber topologische Abbildungen der Brezelflaeche vom Geschlecht 2. *Math. Z.* **74,** 414–435.

Bers, L. (1958). Spaces of Riemann surfaces. *Proc. Int. Congr. Mathematicians, 1958.* Cambridge Univ. Press, London and New York.

Bers, L. (1965). Automorphic forms and Poincaré series for infinitely generated Fuchsian groups. *Amer. J. Math.* **87,** 196–214.

Bers, L. (1973). Uniformization, moduli, and Kleinian groups. *Bull. London Math. Soc.* **4,** 257–300.

Best, L. A. (1971). On torsion free discrete subgroups of $PSL(2, \mathbf{C})$ with compact orbit space. *Canad. J. Math.* **23,** 451–460.

Bieberbach, L. (1911). Die Bewegungsgruppen der Euklidischen Raeume. *Math. Ann.* **70,** 297–336.

Busemann, H., and Kelley, P. J. (1953). "Projective Geometry and Projective Metrics." Academic Press, New York.

Carathéodory, C. (1954a). "Theory of Functions of a Complex Variable," Vol. I, Part 1, pp. 1–86. Chelsea, Bronx, New York.

Carathéodory, C. (1954b). "Theory of Functions of a Complex Variable," Vol. II, pp. 177–184. Chelsea, Bronx, New York.

Cohn, H. (1968). Markoff forms and primitive words. *Math. Ann.* **196,** 8–22.

Cohn, P. M. (1968). A presentation of SL_2 for Euclidean imaginary quadratic number fields. *Mathematika* **15,** 156–163.

Coxeter, H. S. M. (1957). "Non Euclidean Geometry." Univ. of Toronto Press, Toronto.

Coxeter, H. S. M. (1963). "Regular Polytopes," p. 91. MacMillan, New York.

Coxeter, H. S. M., and Moser, W. O. (1965). "Generators and Relations for Discrete Groups." Springer-Verlag, Berlin and New York; *Ergebn. Math.* [N.S.], **14.**